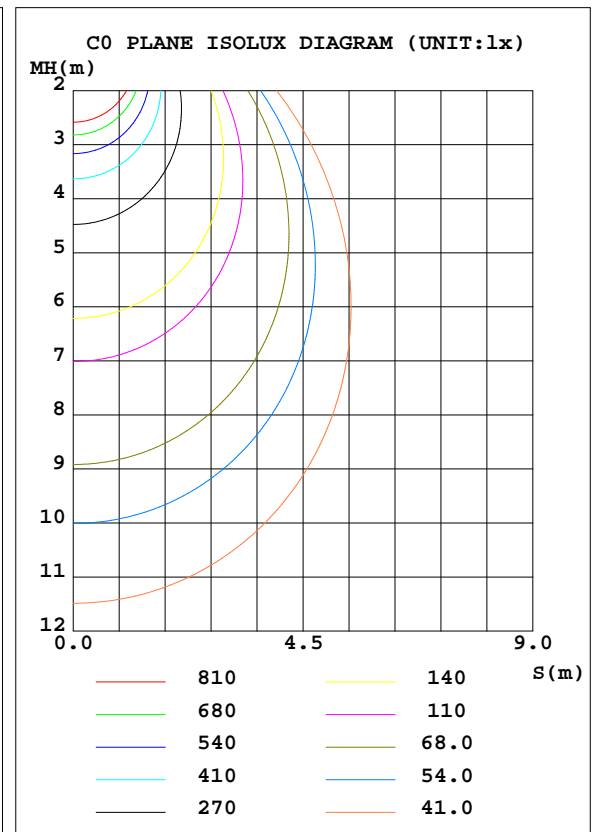
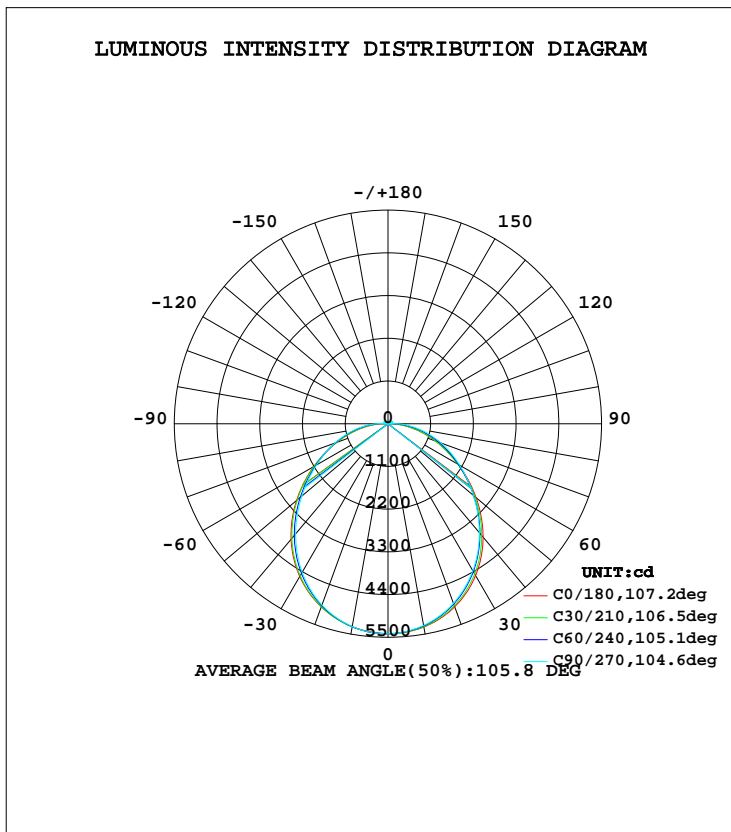


LUMINAIRE PHOTOMETRIC TEST REPORT

Test:U:120.0V I:1.246A P:148.6W PF:0.9940 Lamp Flux:15198x1 lm		
NAME: 4FT LED High-bay Luminaires	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:s15080003k-01
MFR.: A.L.P.Lighting Components,Inc.	SUR.:	PROTECTION ANGLE:

DATA OF LAMP		PHOTOMETRIC DATA Eff: 102.27 lm/W			
MODEL	EHB-15035LF-1	I _{max} (cd)	5410	S/MH(C0/180)	1.25
NOMINAL POWER(W)		LOR(%)	100.0	S/MH(C90/270)	1.22
RATED VOLTAGE(V)	120.0	TOTAL FLUX(lm)	15198	η UP, DN(C0-180)	0.8, 48.9
NOMINAL FLUX(lm)	15198	CIE CLASS	DIRECT	η UP, DN(C180-360)	0.8, 49.5
LAMPS INSIDE	1	η up(%)	1.6	CIBSE SHR NOM	1.25
TEST VOLTAGE(V)	120.0	η down(%)	98.4	CIBSE SHR MAX	1.35



C Range: 0 - 360DEG
 C Interval: 10.0DEG
 Test Speed: MEDIUM
 Temperature:25.3DEG
 Operators:
 Test Date:2015-08-19

γ Range: 0 - 180DEG
 γ Interval: 0.5DEG
 Test System:EVERFINE GO-R3000_V2 SYSTEM V2.0.289
 Humidity:65.0%
 Test Distance:10.000m [K=1.0000]
 Remarks:

ZONAL FLUX DIAGRAM

ZONAL FLUX DIAGRAM:

γ	C0	C45	C90	C135	C180	C225	C270	C315	γ	Φ zone	Φ total	lum, lamp
5	5385	5376	5369	5370	5373	5383	5385	5384	0- 5	128.9	128.9	0.85,0.85
10	5314	5292	5274	5283	5305	5307	5303	5312	5- 10	382.0	510.9	3.36,3.36
15	5192	5154	5125	5148	5186	5178	5165	5185	10- 15	620.9	1132	7.45,7.45
20	5019	4963	4921	4962	5019	4998	4970	5003	15- 20	836.4	1968	13,13
25	4791	4720	4666	4728	4805	4767	4718	4769	20- 25	1020	2988	19.7,19.7
30	4512	4425	4369	4448	4543	4487	4417	4482	25- 30	1165	4154	27.3,27.3
35	4182	4089	4030	4125	4234	4160	4074	4147	30- 35	1265	5419	35.7,35.7
40	3808	3715	3661	3768	3882	3799	3699	3773	35- 40	1317	6736	44.3,44.3
45	3396	3314	3269	3379	3492	3407	3302	3372	40- 45	1320	8055	53,53
50	2961	2896	2874	2972	3075	2996	2897	2952	45- 50	1276	9332	61.4,61.4
55	2521	2478	2490	2556	2641	2580	2501	2530	50- 55	1192	10524	69.2,69.2
60	2089	2073	2129	2149	2210	2169	2124	2116	55- 60	1078	11602	76.3,76.3
65	1680	1694	1788	1761	1798	1780	1777	1726	60- 65	942.4	12544	82.5,82.5
70	1301	1344	1459	1404	1410	1416	1452	1361	65- 70	794.4	13339	87.8,87.8
75	942.5	1009	1132	1066	1048	1081	1141	1024	70- 75	638.6	13977	92,92
80	610.8	694.9	812.5	752.5	711.7	773.9	841.1	714.3	75- 80	478.5	14456	95.1,95.1
85	314.2	402.6	506.0	464.7	409.2	494.4	552.8	425.6	80- 85	320.0	14776	97.2,97.2
90	135.9	173.2	254.2	221.5	144.7	252.1	307.8	193.3	85- 90	175.2	14951	98.4,98.4
95	96.54	29.35	76.81	40.71	78.50	72.68	122.3	53.52	90- 95	72.96	15024	98.9,98.9
100	63.01	46.97	13.42	29.35	29.38	11.81	13.53	37.19	95-100	23.46	15047	99,99
105	36.02	89.83	69.78	74.03	1.565	57.37	40.29	73.69	100-105	21.17	15069	99.2,99.1
110	16.96	80.24	127.0	68.68	1.593	73.48	96.31	68.22	105-110	31.36	15100	99.4,99.4
115	4.510	59.70	122.5	51.28	2.831	57.96	117.7	52.77	110-115	32.00	15132	99.6,99.6
120	2.561	40.80	94.37	34.92	1.973	42.60	93.10	37.38	115-120	24.13	15156	99.7,99.7
125	2.806	24.59	67.92	20.35	2.216	28.48	70.21	23.79	120-125	16.59	15173	99.8,99.8
130	3.039	11.59	45.89	8.805	2.772	16.44	49.38	12.79	125-130	10.60	15183	99.9,99.9
135	3.185	4.583	27.23	3.491	2.996	7.419	31.51	5.930	130-135	6.144	15189	99.9,99.9
140	3.138	3.128	12.61	3.017	3.104	2.909	17.71	2.793	135-140	3.163	15193	100,100
145	3.141	3.154	3.439	3.120	3.134	2.795	6.613	2.750	140-145	1.466	15194	100,100
150	3.181	3.260	3.142	3.177	3.225	3.011	2.622	2.982	145-150	0.9005	15195	100,100
155	3.272	3.166	3.296	3.221	3.335	3.085	2.920	3.019	150-155	0.7805	15196	100,100
160	3.352	3.222	3.284	3.297	3.409	3.008	2.917	3.084	155-160	0.6621	15196	100,100
165	3.407	3.283	3.197	3.221	3.484	2.977	2.779	3.251	160-165	0.5234	15197	100,100
170	3.615	3.634	3.342	3.468	3.645	3.201	2.814	3.251	165-170	0.3890	15197	100,100
175	3.762	3.779	3.851	3.689	3.747	3.514	3.408	3.515	170-175	0.2454	15198	100,100
180	3.753	3.753	3.753	3.753	3.753	3.753	3.753	3.753	175-180	0.0879	15198	100,100
DEG	LUMINOUS INTENSITY:cd								UNIT:lm			

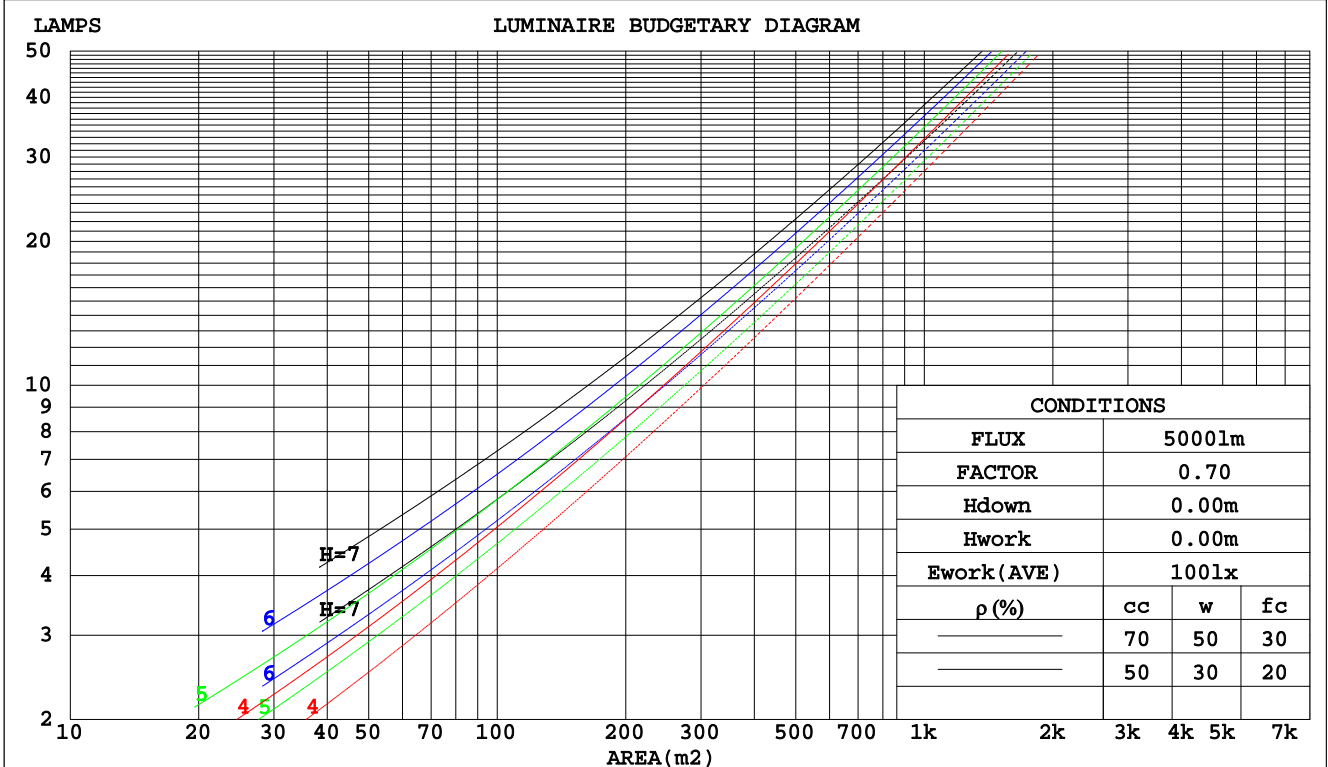
C Range: 0 - 360DEG
 C Interval: 10.0DEG
 Test Speed: MEDIUM
 Temperature:25.3DEG
 Operators:
 Test Date:2015-08-19

γ Range: 0 - 180DEG
 γ Interval: 0.5DEG
 Test System:EVERFINE GO-R3000_V2 SYSTEM V2.0.289
 Humidity:65.0%
 Test Distance:10.000m [K=1.0000]
 Remarks:

CU AND LUMINAIRE BUDGETARY ESTIMATE DIAGRAM

Test:U:120.0V I:1.246A P:148.6W PF:0.9940 Lamp Flux:15198x1 lm		
NAME: 4FT LED High-bay Luminaires	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:s15080003k-01
MFR.: A.L.P.Lighting Components,Inc.	SUR.:	PROTECTION ANGLE:

pcc	80%			70%			50%			30%			10%			0
	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	0
pw																0
pfc	20%			20%			20%			20%			20%			0
RCR	RCR:Room Cavity Ratio															
	Coefficients of Utilization(CU)															
0.0	1.19	1.19	1.19	1.16	1.16	1.16	1.10	1.10	1.10	1.05	1.05	1.05	1.01	1.01	1.01	.98
1.0	1.03	.98	.94	1.00	.96	.93	.96	.92	.89	.92	.89	.86	.88	.86	.83	.81
2.0	.90	.83	.77	.87	.81	.76	.84	.78	.74	.80	.76	.72	.77	.73	.70	.68
3.0	.79	.70	.64	.77	.69	.63	.74	.67	.62	.71	.65	.60	.68	.63	.59	.57
4.0	.70	.61	.54	.68	.60	.54	.66	.58	.53	.63	.57	.52	.61	.55	.51	.49
5.0	.62	.53	.47	.61	.53	.46	.59	.51	.46	.57	.50	.45	.55	.49	.44	.42
6.0	.56	.47	.41	.55	.47	.41	.53	.46	.40	.51	.45	.40	.50	.44	.39	.37
7.0	.51	.42	.36	.50	.42	.36	.48	.41	.35	.47	.40	.35	.45	.39	.35	.33
8.0	.47	.38	.32	.46	.38	.32	.44	.37	.32	.43	.36	.31	.42	.36	.31	.29
9.0	.43	.35	.29	.42	.34	.29	.41	.34	.29	.40	.33	.28	.39	.33	.28	.26
10.0	.40	.32	.26	.39	.31	.26	.38	.31	.26	.37	.30	.26	.36	.30	.26	.24



C Range: 0 - 360DEG
 C Interval: 10.0DEG
 Test Speed: MEDIUM
 Temperature:25.3DEG
 Operators:
 Test Date:2015-08-19

γ Range: 0 - 180DEG
 γ Interval: 0.5DEG
 Test System:EVERFINE GO-R3000_V2 SYSTEM V2.0.289
 Humidity:65.0%
 Test Distance:10.000m [K=1.0000]
 Remarks:

WEC AND CCEC

Test:U:120.0V I:1.246A P:148.6W PF:0.9940 Lamp Flux:15198x1 lm		
NAME: 4FT LED High-bay Luminaires	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:s15080003k-01
MFR.: A.L.P.Lighting Components,Inc.	SUR.:	PROTECTION ANGLE:

ρcc	80%			70%			50%			30%			10%			0
ρw	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	0
ρfc	20%			20%			20%			20%			20%			0
RCR	RCR:Room Cavity Ratio						Wall Exitance Coefficients(WEC)									
0.0																
1.0	.323	.183	.058	.315	.180	.057	.301	.173	.055	.288	.166	.053	.276	.160	.051	
2.0	.297	.163	.050	.290	.160	.049	.278	.154	.048	.266	.149	.047	.255	.144	.045	
3.0	.272	.145	.043	.266	.143	.043	.255	.138	.042	.245	.134	.041	.235	.130	.040	
4.0	.250	.130	.038	.245	.128	.038	.235	.124	.037	.225	.121	.037	.217	.118	.036	
5.0	.230	.117	.034	.226	.116	.034	.217	.113	.033	.209	.110	.033	.201	.107	.032	
6.0	.213	.107	.031	.209	.106	.030	.201	.103	.030	.194	.101	.030	.187	.098	.029	
7.0	.198	.098	.028	.194	.097	.028	.187	.095	.027	.181	.093	.027	.175	.091	.027	
8.0	.185	.090	.025	.182	.089	.025	.175	.088	.025	.169	.086	.025	.164	.084	.024	
9.0	.173	.084	.023	.170	.083	.023	.165	.081	.023	.159	.080	.023	.154	.078	.023	
10.0	.163	.078	.022	.160	.077	.022	.155	.076	.021	.150	.075	.021	.145	.073	.021	

ρcc	80%			70%			50%			30%			10%			0
ρw	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	0
ρfc	20%			20%			20%			20%			20%			0
RCR	RCR:Room Cavity Ratio						Ceiling Cavity Exitance Coefficients(CCEC)									
0.0	.203	.203	.203	.173	.173	.173	.118	.118	.118	.068	.068	.068	.022	.022	.022	
1.0	.194	.168	.146	.166	.145	.125	.113	.099	.087	.065	.058	.050	.021	.019	.016	
2.0	.185	.144	.110	.159	.124	.095	.109	.086	.066	.063	.050	.039	.020	.016	.013	
3.0	.177	.127	.087	.152	.109	.075	.104	.076	.053	.060	.044	.031	.019	.014	.010	
4.0	.170	.114	.071	.146	.098	.062	.100	.068	.043	.058	.040	.026	.019	.013	.008	
5.0	.162	.103	.060	.139	.089	.052	.096	.062	.037	.056	.037	.022	.018	.012	.007	
6.0	.155	.095	.052	.133	.082	.045	.092	.058	.032	.053	.034	.019	.017	.011	.006	
7.0	.148	.088	.046	.127	.076	.040	.088	.054	.028	.051	.032	.017	.017	.010	.006	
8.0	.141	.082	.042	.122	.071	.036	.084	.050	.026	.049	.030	.015	.016	.010	.005	
9.0	.135	.077	.038	.117	.067	.033	.081	.047	.024	.047	.028	.014	.015	.009	.005	
10.0	.130	.073	.035	.112	.063	.031	.078	.045	.022	.045	.026	.013	.015	.009	.004	

C Range: 0 - 360DEG
 C Interval: 10.0DEG
 Test Speed: MEDIUM
 Temperature:25.3DEG
 Operators:
 Test Date:2015-08-19

γ Range: 0 - 180DEG
 γ Interval: 0.5DEG
 Test System:EVERFINE GO-R3000_V2 SYSTEM V2.0.289
 Humidity:65.0%
 Test Distance:10.000m [K=1.0000]
 Remarks:

UGR(Unified Glare Rating) Table

Test:U:120.0V I:1.246A P:148.6W PF:0.9940 Lamp Flux:15198x1 lm										
NAME: 4FT LED High-bay Luminaires					TYPE:			WEIGHT:		
SPEC.:					DIM.:			SERIAL No.:s15080003k-01		
MFR.: A.L.P.Lighting Components,Inc.					SUR.:			PROTECTION ANGLE:		
ceiling/cavity	0.7	0.7	0.5	0.5	0.3	0.7	0.7	0.5	0.5	0.3
walls	0.5	0.3	0.5	0.3	0.3	0.5	0.3	0.5	0.3	0.3
working plane	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
Room dimensions	Viewed crosswise					Viewed endwise				
x = 2H y = 2H	25.6	27.1	25.9	27.4	27.6	25.7	27.2	26.0	27.4	27.6
3H	27.1	28.5	27.4	28.7	29.0	27.4	28.7	27.7	29.0	29.3
4H	27.7	29.0	28.0	29.3	29.6	28.2	29.5	28.5	29.8	30.0
6H	28.2	29.4	28.5	29.7	30.1	28.9	30.1	29.2	30.4	30.7
8H	28.4	29.6	28.7	29.9	30.2	29.2	30.4	29.6	30.7	31.0
12H	28.5	29.7	28.9	30.0	30.3	29.5	30.7	29.9	31.0	31.3
4H 2H	26.2	27.5	26.6	27.8	28.1	26.2	27.6	26.6	27.8	28.1
3H	27.9	29.0	28.2	29.3	29.7	28.1	29.3	28.5	29.6	30.0
4H	28.6	29.7	29.0	30.0	30.4	29.1	30.2	29.5	30.5	30.9
6H	29.2	30.2	29.7	30.6	31.0	30.0	30.9	30.4	31.3	31.7
8H	29.5	30.4	29.9	30.8	31.2	30.4	31.3	30.8	31.7	32.1
12H	29.7	30.5	30.2	30.9	31.4	30.8	31.6	31.2	32.0	32.5
8H 4H	29.0	29.8	29.4	30.2	30.7	29.4	30.3	29.8	30.7	31.1
6H	29.8	30.5	30.2	30.9	31.4	30.5	31.2	30.9	31.7	32.1
8H	30.1	30.8	30.6	31.2	31.7	31.0	31.7	31.5	32.1	32.6
12H	30.4	31.0	30.9	31.5	32.0	31.6	32.1	32.1	32.6	33.1
12H 4H	29.0	29.8	29.5	30.2	30.7	29.4	30.2	29.9	30.6	31.1
6H	29.9	30.5	30.4	31.0	31.5	30.6	31.2	31.0	31.7	32.2
8H	30.3	30.9	30.8	31.3	31.9	31.2	31.7	31.7	32.2	32.7
Variations with the observer position at spacings:										
S = 1.0H	+ 0.2 / - 0.2					+ 0.1 / - 0.2				
1.5H	+ 0.1 / - 0.3					+ 0.2 / - 0.3				
2.0H	+ 0.2 / - 0.2					+ 0.1 / - 0.2				

CIE Pub.117 Corrected 15198 lm Total Lamp Luminous Flux.(8log(F/F0) = 9.5)

C Range: 0 - 360DEG
 C Interval: 10.0DEG
 Test Speed: MEDIUM
 Temperature:25.3DEG
 Operators:
 Test Date:2015-08-19

γ Range: 0 - 180DEG
 γ Interval: 0.5DEG
 Test System:EVERFINE GO-R3000_V2 SYSTEM V2.0.289
 Humidity:65.0%
 Test Distance:10.000m [K=1.0000]
 Remarks:

UTILIZATION FACTORS TABLE

Test:U:120.0V I:1.246A P:148.6W PF:0.9940 Lamp Flux:15198x1 lm		
NAME: 4FT LED High-bay Luminaires	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:s15080003k-01
MFR.: A.L.P.Lighting Components,Inc.	SUR.:	PROTECTION ANGLE:

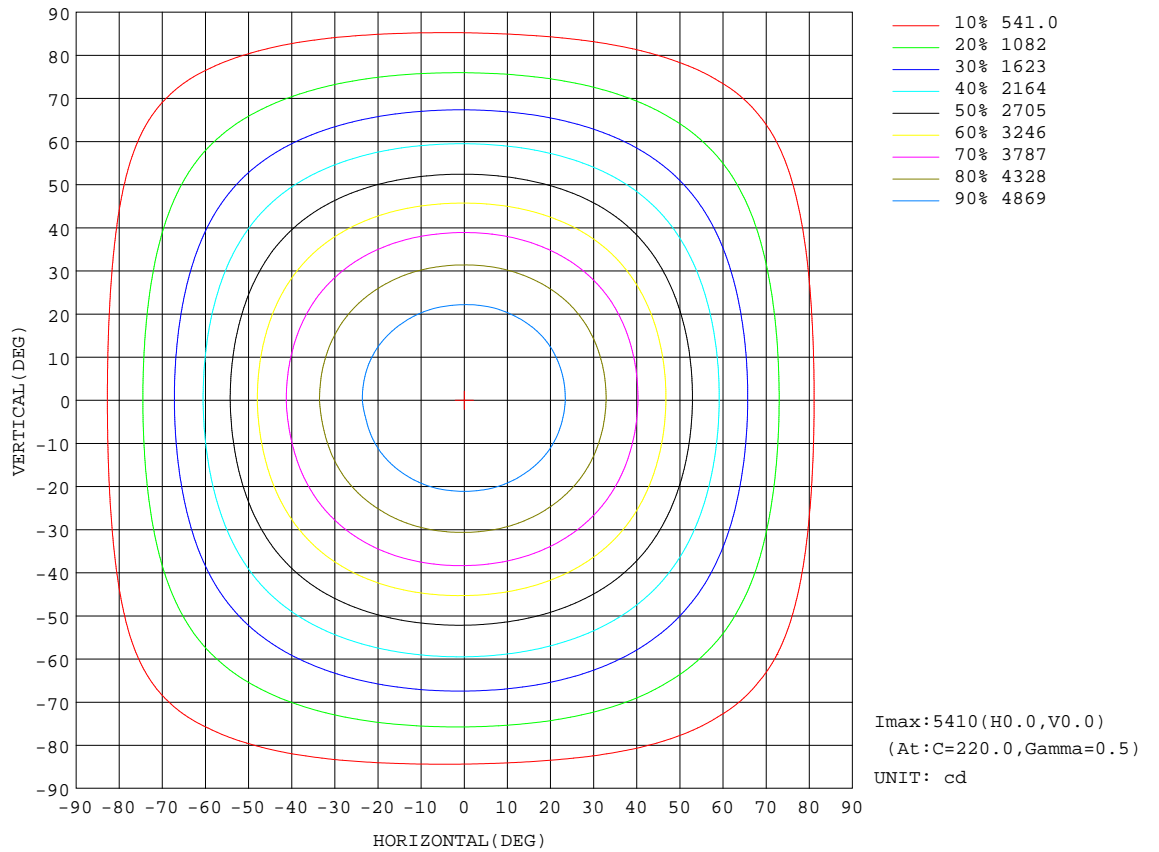
REFLECTANCE										
Ceiling	0.8	0.8	0.8	0.7	0.7	0.7	0.5	0.5	0.5	0
Walls	0.7	0.5	0.3	0.7	0.5	0.3	0.7	0.5	0.3	0
Working plane	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0
ROOM INDEX	UTILIZATION FACTORS(PERCENT) $k(RI) \times RCR = 5$									
k = 0.60	57	46	39	57	46	39	55	45	39	32
0.80	67	56	48	66	55	48	64	54	48	41
1.00	75	64	57	74	64	57	72	65	56	49
1.25	82	72	64	81	71	64	78	69	63	56
1.50	87	77	70	85	76	69	82	74	68	61
2.00	94	85	79	92	84	78	88	82	76	68
2.50	98	90	84	96	88	83	92	86	81	72
3.00	101	94	88	99	92	87	95	89	85	76
4.00	105	99	94	103	97	93	98	94	90	81
5.00	108	103	98	105	100	97	100	97	93	84
ROOM INDEX	UF(total)									Direct
According to DIN EN 13032-2 2004			Suspended				SHRNOM = 1.25			

C Range: 0 - 360DEG
 C Interval: 10.0DEG
 Test Speed: MEDIUM
 Temperature:25.3DEG
 Operators:
 Test Date:2015-08-19

γ Range: 0 - 180DEG
 γ Interval: 0.5DEG
 Test System:EVERFINE GO-R3000_V2 SYSTEM V2.0.289
 Humidity:65.0%
 Test Distance:10.000m [K=1.0000]
 Remarks:

ISOCANDELA DIAGRAM

Test:U:120.0V I:1.246A P:148.6W PF:0.9940 Lamp Flux:15198x1 lm		
NAME: 4FT LED High-bay Luminaires	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:s15080003k-01
MFR.: A.L.P.Lighting Components,Inc.	SUR.:	PROTECTION ANGLE:

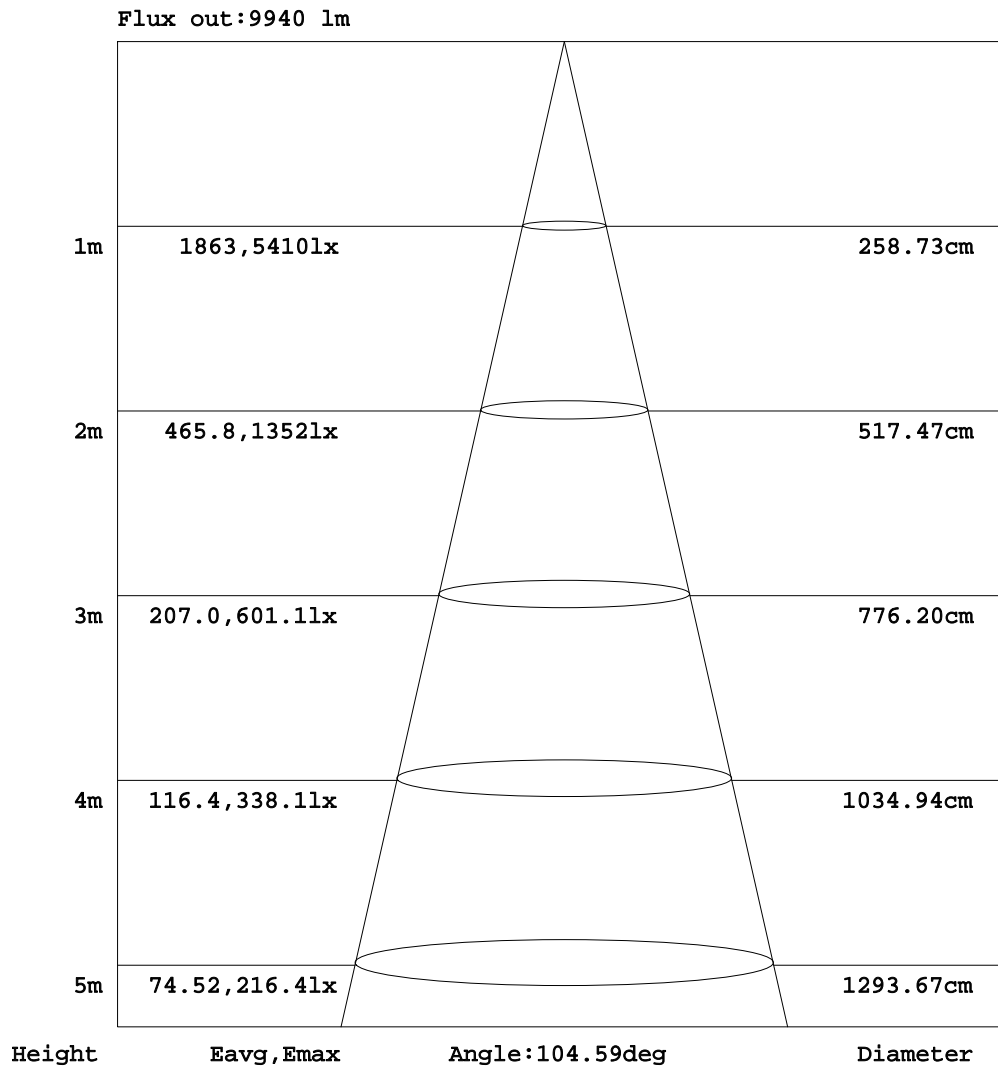


C Range: 0 - 360DEG
 C Interval: 10.0DEG
 Test Speed: MEDIUM
 Temperature:25.3DEG
 Operators:
 Test Date:2015-08-19

γ Range: 0 - 180DEG
 γ Interval: 0.5DEG
 Test System:EVERFINE GO-R3000_V2 SYSTEM V2.0.289
 Humidity:65.0%
 Test Distance:10.000m [K=1.0000]
 Remarks:

AAI Figure

Test:U:120.0V I:1.246A P:148.6W PF:0.9940 Lamp Flux:15198x1 lm		
NAME: 4FT LED High-bay Luminaires	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:s15080003k-01
MFR.: A.L.P.Lighting Components,Inc.	SUR.:	PROTECTION ANGLE:



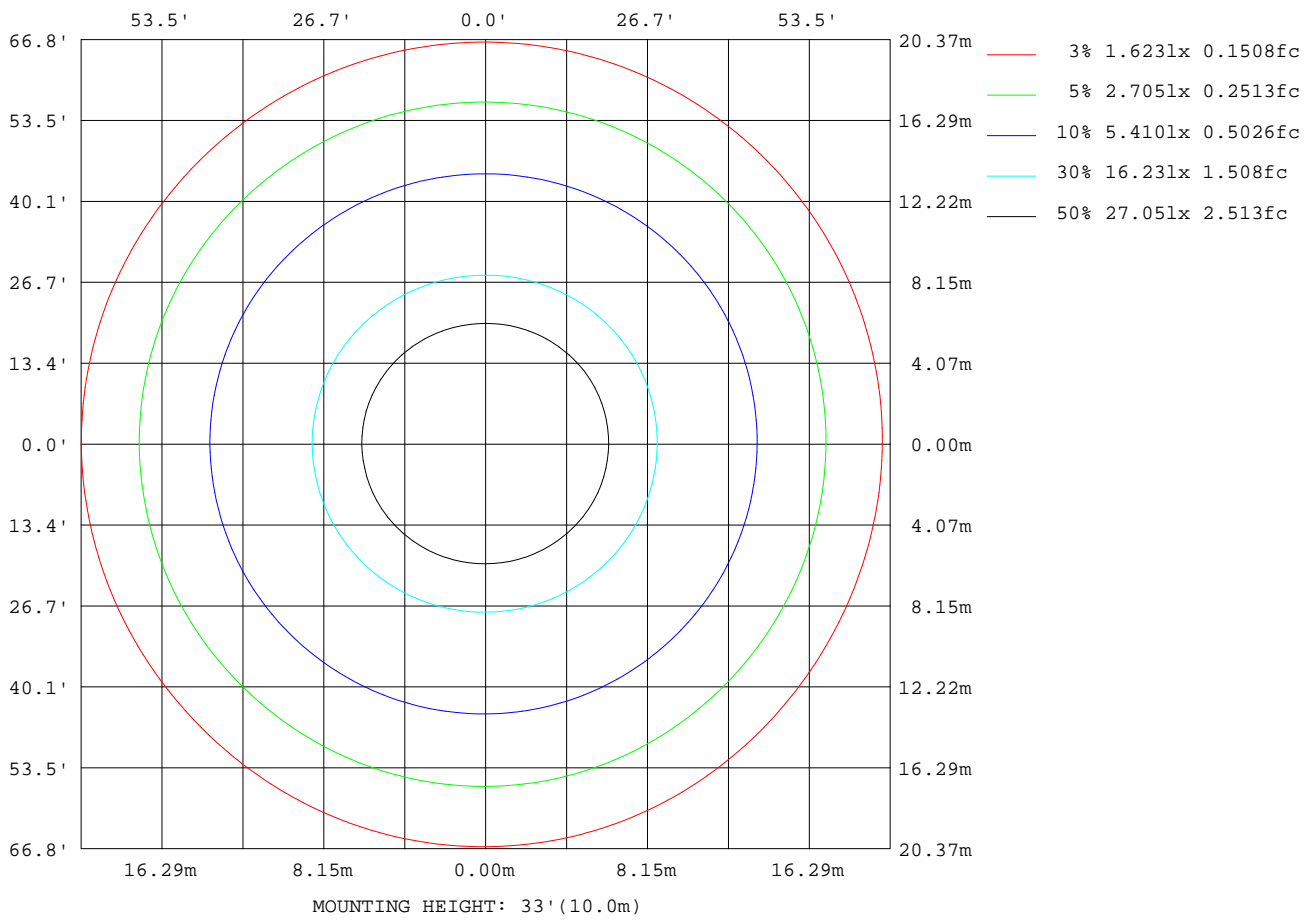
Note:The Curves indicate the illuminated area and the average illumination when the luminaire is at different distance.

C Range: 0 - 360DEG
 C Interval: 10.0DEG
 Test Speed: MEDIUM
 Temperature:25.3DEG
 Operators:
 Test Date:2015-08-19

γ Range: 0 - 180DEG
 γ Interval: 0.5DEG
 Test System:EVERFINE GO-R3000_V2 SYSTEM V2.0.289
 Humidity:65.0%
 Test Distance:10.000m [K=1.0000]
 Remarks:

ISOLUX DIAGRAM

Test:U:120.0V I:1.246A P:148.6W PF:0.9940 Lamp Flux:15198x1 lm		
NAME: 4FT LED High-bay Luminaires	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:s15080003k-01
MFR.: A.L.P.Lighting Components,Inc.	SUR.:	PROTECTION ANGLE:



C Range: 0 - 360DEG
 C Interval: 10.0DEG
 Test Speed: MEDIUM
 Temperature: 25.3DEG
 Operators:
 Test Date: 2015-08-19

γ Range: 0 - 180DEG
 γ Interval: 0.5DEG
 Test System: EVERFINE GO-R3000_V2 SYSTEM V2.0.289
 Humidity: 65.0%
 Test Distance: 10.000m [K=1.0000]
 Remarks:

Average Luminance Table(CIBSE)

Test:U:120.0V I:1.246A P:148.6W PF:0.9940 Lamp Flux:15198x1 lm		
NAME: 4FT LED High-bay Luminaires	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:s15080003k-01
MFR.: A.L.P.Lighting Components,Inc.	SUR.:	PROTECTION ANGLE:

Parameter description for average Luminance	Symbol	Value	Unit
Luminance in Azimuth Plane	Bc	refer Table 2	cd/sq.m.
Intensity at angle Gamma in given azimuth plane	I	from data	cd/klm
Number of lamps	N	1	
Output of each lamp(initial lumens as specified)	F	15198	lm
Multiplying factor	K	1	
Luminous area in horizontal plane used in calculations	A	0.1	sq.m.
Angle to the downward vertical from light centre	Gamma	from data	deg

Table 1. Calculation parameters for determination of CIBSE LG3:1996 Average Luminance

G deg	C plane(deg)																		
	0	10	20	30	40	50	60	70	80	90	100	110	120	130	140	150	160	170	180
55	43949	43934	43895	43838	43725	43582	43489	43456	43457	43509	43629	43870	44165	44545	44989	45423	45716	45919	46044
60	41771	41760	41754	41791	41835	41949	42123	42306	42435	42525	42620	42740	42858	43032	43330	43674	43931	44093	44207
65	39743	39707	39730	39883	40214	40698	41241	41727	42019	42181	42232	42186	42040	41888	41887	42056	42266	42414	42543
70	38049	37933	37997	38323	39040	40040	41038	41811	42334	42562	42569	42382	41927	41428	41017	40915	41054	41207	41215
75	36414	36325	36465	37131	38456	40094	41644	42806	43537	43909	43919	43607	42932	41943	41010	40478	40385	40546	40488
80	35177	35145	35588	36956	39234	41917	44189	45884	46981	47613	47729	47361	46392	44843	43058	41760	41232	41241	40985
85	36046	36086	37364	40443	45056	49965	54142	57230	59425	60737	61148	60729	59268	56693	53353	50142	48288	47744	46952

Table 2. Average Luminance(cd/sq.m.) for defined C plane,Gamma angle

CIBSE Category	Gamma (deg)	Average Luminance		Patch Luminance	
		maximum	specified	maximum	specified
		calculated	maximum	measured	maximum
Category 1	55 to 90	61148	200	---	500
Category 2	65 to 90	61148	200	---	500
Category 3	75 to 90	61148	200	---	500

Table 3. Tabulation of Average and Patch Luminance(cd/sq.m.) for defined CIBSE categories

No match

C Range: 0 - 360DEG
 C Interval: 10.0DEG
 Test Speed: MEDIUM
 Temperature:25.3DEG
 Operators:
 Test Date:2015-08-19

γ Range: 0 - 180DEG
 γ Interval: 0.5DEG
 Test System:EVERFINE GO-R3000_V2 SYSTEM V2.0.289
 Humidity:65.0%
 Test Distance:10.000m [K=1.0000]
 Remarks:

Average Luminance Table(CIBSE)

Test:U:120.0V I:1.246A P:148.6W PF:0.9940 Lamp Flux:15198x1 lm		
NAME: 4FT LED High-bay Luminaires	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:s15080003k-01
MFR.: A.L.P.Lighting Components,Inc.	SUR.:	PROTECTION ANGLE:

Parameter description for average Luminance	Symbol	Value	Unit
Luminance in Azimuth Plane	Bc	refer Table 2	cd/sq.m.
Intensity at angle Gamma in given azimuth plane	I	from data	cd/klm
Number of lamps	N	1	
Output of each lamp(initial lumens as specified)	F	15198	lm
Multiplying factor	K	1	
Luminous area in horizontal plane used in calculations	A	0.1	sq.m.
Angle to the downward vertical from light centre	Gamma	from data	deg

Table 1. Calculation parameters for determination of CIBSE LG3:2001 Average Luminance

G deg	C plane(deg)																		
	0	10	20	30	40	50	60	70	80	90	100	110	120	130	140	150	160	170	180
55	43949	43934	43895	43838	43725	43582	43489	43456	43457	43509	43629	43870	44165	44545	44989	45423	45716	45919	46044
60	41771	41760	41754	41791	41835	41949	42123	42306	42435	42525	42620	42740	42858	43032	43330	43674	43931	44093	44207
65	39743	39707	39730	39883	40214	40698	41241	41727	42019	42181	42232	42186	42040	41888	41887	42056	42266	42414	42543
70	38049	37933	37997	38323	39040	40040	41038	41811	42334	42562	42569	42382	41927	41428	41017	40915	41054	41207	41215
75	36414	36325	36465	37131	38456	40094	41644	42806	43537	43909	43919	43607	42932	41943	41010	40478	40385	40546	40488
80	35177	35145	35588	36956	39234	41917	44189	45884	46981	47613	47729	47361	46392	44843	43058	41760	41232	41241	40985
85	36046	36086	37364	40443	45056	49965	54142	57230	59425	60737	61148	60729	59268	56693	53353	50142	48288	47744	46952

Table 2. Average Luminance(cd/sq.m.) for defined C plane,Gamma angle

range (deg)	Maximum measured	Average Luminance(cd/sq.m)			
		Maximum limit for screen type & software category used			
		Type I,II screen Some neg.s'ware	Type I,II screen Only pos.s'ware	Type III screen Some neg.s'ware	Type III screen Only pos.s'ware
55 to 90	61148	1000	1500	200	500
65 to 90	61148	1000	1500	200	500

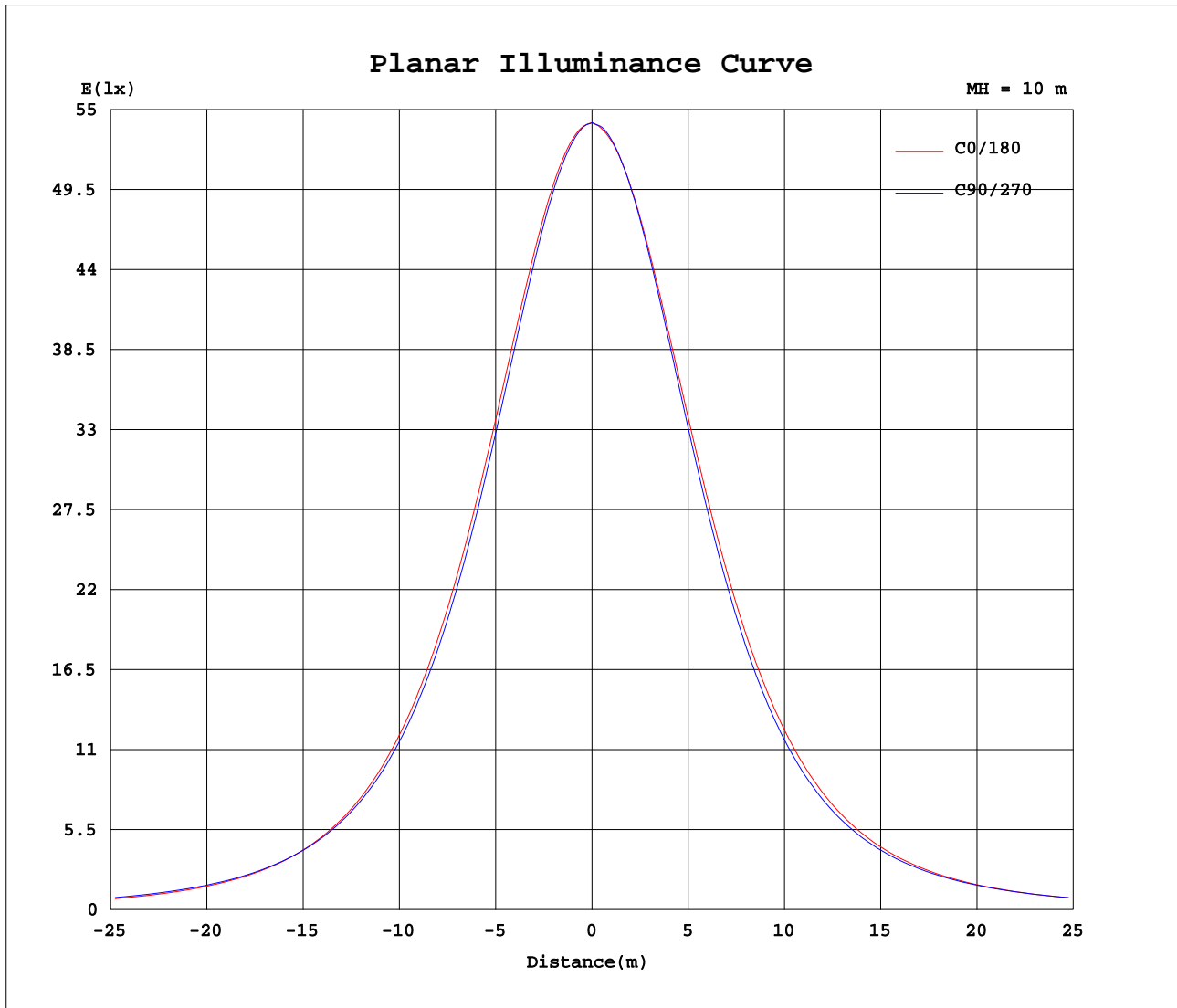
Table 3. Tabulation of average luminance(cd/sq.m.) and luminance limits

No match

C Range: 0 - 360DEG
 C Interval: 10.0DEG
 Test Speed: MEDIUM
 Temperature:25.3DEG
 Operators:
 Test Date:2015-08-19

γ Range: 0 - 180DEG
 γ Interval: 0.5DEG
 Test System:EVERFINE GO-R3000_V2 SYSTEM V2.0.289
 Humidity:65.0%
 Test Distance:10.000m [K=1.0000]
 Remarks:

Planar Illuminance Curve



C Range: 0 - 360DEG
 C Interval: 10.0DEG
 Test Speed: MEDIUM
 Temperature: 25.3DEG
 Operators:
 Test Date: 2015-08-19

γ Range: 0 - 180DEG
 γ Interval: 0.5DEG
 Test System: EVERFINE GO-R3000_V2 SYSTEM V2.0.289
 Humidity: 65.0%
 Test Distance: 10.000m [K=1.0000]
 Remarks:

LUMINOUS DISTRIBUTION INTENSITY DATA

Test:U:120.0V I:1.246A P:148.6W PF:0.9940 Lamp Flux:15198x1 lm		
NAME: 4FT LED High-bay Luminaires	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:s15080003k-01
MFR.: A.L.P.Lighting Components,Inc.	SUR.:	PROTECTION ANGLE:

Table--1

UNIT: cd

C(DEG) γ (DEG)	0	10	20	30	40	50	60	70	80	90	100	110	120	130	140	150	160	170	180
0	5410	5410	5410	5410	5410	5410	5410	5410	5410	5410	5410	5410	5410	5410	5410	5410	5410	5410	5410
5	5385	5383	5383	5382	5378	5374	5372	5373	5373	5369	5367	5369	5371	5370	5369	5371	5374	5372	5373
10	5314	5310	5307	5303	5296	5288	5284	5282	5279	5274	5274	5278	5280	5281	5285	5292	5296	5295	5305
15	5192	5186	5180	5172	5160	5148	5141	5136	5129	5125	5127	5133	5138	5143	5152	5163	5169	5172	5186
20	5019	5009	5000	4988	4971	4955	4943	4934	4926	4921	4925	4935	4944	4954	4969	4985	4996	5002	5019
25	4791	4781	4768	4752	4730	4709	4692	4680	4670	4666	4672	4685	4699	4717	4739	4761	4776	4785	4805
30	4512	4500	4484	4464	4438	4413	4394	4382	4371	4369	4377	4394	4412	4434	4462	4489	4509	4521	4543
35	4182	4169	4153	4131	4102	4076	4056	4041	4031	4030	4041	4060	4082	4110	4141	4173	4197	4212	4234
40	3808	3795	3777	3754	3728	3702	3682	3668	3660	3661	3673	3695	3722	3751	3785	3818	3844	3860	3882
45	3396	3384	3368	3349	3326	3302	3285	3273	3266	3269	3282	3304	3331	3362	3396	3429	3455	3471	3492
50	2961	2950	2936	2922	2904	2887	2875	2870	2868	2874	2885	2905	2929	2956	2988	3017	3039	3056	3075
55	2521	2510	2499	2490	2481	2475	2475	2479	2484	2490	2498	2510	2525	2544	2567	2592	2609	2625	2641
60	2089	2077	2070	2066	2068	2078	2094	2110	2122	2129	2133	2137	2139	2143	2154	2170	2184	2196	2210
65	1680	1669	1663	1665	1681	1707	1737	1763	1779	1788	1790	1785	1775	1763	1759	1764	1775	1785	1798
70	1301	1292	1287	1297	1325	1363	1401	1430	1450	1459	1459	1452	1432	1412	1395	1391	1397	1407	1410
75	942	936	933	950	987	1031	1071	1102	1122	1132	1133	1125	1106	1079	1053	1039	1039	1047	1048
80	611	607	609	631	672	718	755	783	802	812	816	810	795	768	737	716	710	714	712
85	314	311	317	343	383	423	456	479	495	506	510	509	498	478	451	426	414	414	409
90	136	128	121	132	160	187	211	230	245	254	258	257	250	233	210	189	175	165	145
95	96.5	89.1	79.7	51.0	26.8	31.9	45.7	60.8	71.4	76.8	76.9	71.2	59.6	46.7	34.7	39.8	63.1	75.7	78.5
100	63.0	55.4	61.3	74.2	56.1	37.9	26.6	19.6	15.1	13.4	14.0	16.9	21.6	26.8	31.9	40.6	30.1	27.4	29.4
105	36.0	31.1	35.5	55.3	83.5	96.1	87.4	78.6	72.5	69.8	70.7	74.5	79.5	82.0	66.1	33.5	9.89	2.41	1.57
110	17.0	13.9	13.9	34.3	64.7	95.8	120	131	129	127	127	126	112	83.7	53.7	24.5	3.56	2.53	1.59
115	4.51	3.15	3.05	21.2	46.8	72.6	95.1	111	120	123	118	106	88.3	64.5	38.0	15.3	4.70	3.73	2.83
120	2.56	2.70	3.21	9.98	30.3	51.3	69.9	84.0	92.3	94.4	90.5	80.5	64.9	45.6	24.3	5.63	2.53	2.49	1.97
125	2.81	2.84	2.99	3.73	16.3	32.9	48.2	59.4	66.1	67.9	64.7	56.7	44.4	28.4	12.3	3.03	2.61	2.57	2.22
130	3.04	2.90	3.08	3.24	5.44	17.7	29.3	38.6	44.3	45.9	43.1	36.4	26.3	14.4	3.21	3.05	2.81	2.69	2.77
135	3.19	2.98	3.09	3.00	3.21	5.95	14.8	21.5	26.1	27.2	25.1	19.9	12.4	3.96	3.03	2.94	2.88	2.76	3.00
140	3.14	3.01	3.13	3.26	3.09	3.17	3.69	8.22	11.7	12.6	10.9	7.08	3.12	3.09	2.95	3.03	2.94	2.76	3.10
145	3.14	2.86	3.09	3.23	3.27	3.03	3.16	3.16	3.29	3.44	3.36	3.27	3.21	3.10	3.14	3.03	2.95	3.00	3.13
150	3.18	2.96	3.10	3.17	3.26	3.26	3.07	3.04	3.11	3.14	3.15	3.18	3.25	3.23	3.13	3.07	3.00	3.17	3.22
155	3.27	3.22	2.99	3.18	3.17	3.17	3.17	3.21	3.30	3.30	3.30	3.33	3.35	3.25	3.19	3.16	3.01	3.27	3.34
160	3.35	3.32	3.15	3.08	3.24	3.21	3.09	3.13	3.22	3.28	3.38	3.35	3.37	3.31	3.28	3.22	3.30	3.34	3.41
165	3.41	3.37	3.41	3.30	3.20	3.37	3.35	3.18	3.15	3.20	3.23	3.29	3.30	3.22	3.22	3.33	3.37	3.34	3.48
170	3.62	3.61	3.63	3.67	3.67	3.60	3.52	3.35	3.30	3.34	3.31	3.31	3.33	3.41	3.52	3.55	3.49	3.49	3.65
175	3.76	3.71	3.75	3.75	3.78	3.78	3.77	3.64	3.78	3.85	3.79	3.57	3.63	3.69	3.69	3.64	3.58	3.67	3.75
180	3.75	3.75	3.75	3.75	3.75	3.75	3.75	3.75	3.75	3.75	3.75	3.75	3.75	3.75	3.75	3.75	3.75	3.75	3.75

C Range: 0 - 360DEG
 C Interval: 10.0DEG
 Test Speed: MEDIUM
 Temperature:25.3DEG
 Operators:
 Test Date:2015-08-19

γ Range: 0 - 180DEG
 γ Interval: 0.5DEG
 Test System:EVERFINE GO-R3000_V2 SYSTEM V2.0.289
 Humidity:65.0%
 Test Distance:10.000m [K=1.0000]
 Remarks:

LUMINOUS DISTRIBUTION INTENSITY DATA

Test:U:120.0V I:1.246A P:148.6W PF:0.9940 Lamp Flux:15198x1 lm		
NAME: 4FT LED High-bay Luminaires	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:s15080003k-01
MFR.: A.L.P.Lighting Components,Inc.	SUR.:	PROTECTION ANGLE:

Table--2

UNIT: cd

C(DEG) γ (DEG)	190	200	210	220	230	240	250	260	270	280	290	300	310	320	330	340	350		
0	5410	5410	5410	5410	5410	5410	5410	5410	5410	5410	5410	5410	5410	5410	5410	5410	5410		
5	5383	5384	5386	5382	5383	5386	5383	5382	5385	5385	5382	5382	5384	5385	5382	5379	5384		
10	5310	5311	5313	5308	5306	5307	5305	5302	5303	5306	5307	5307	5310	5314	5314	5311	5312		
15	5190	5191	5189	5181	5175	5173	5169	5164	5165	5169	5172	5175	5181	5188	5192	5192	5191		
20	5022	5020	5014	5003	4993	4985	4978	4970	4970	4975	4981	4988	4998	5009	5017	5019	5019		
25	4806	4802	4793	4776	4758	4745	4733	4720	4718	4725	4735	4746	4760	4777	4789	4793	4795		
30	4543	4535	4522	4499	4475	4453	4435	4421	4417	4423	4435	4450	4471	4493	4508	4514	4516		
35	4233	4224	4206	4176	4145	4119	4097	4080	4074	4081	4095	4112	4135	4159	4179	4186	4188		
40	3880	3870	3850	3816	3783	3752	3727	3706	3699	3704	3719	3737	3761	3786	3807	3814	3814		
45	3491	3481	3457	3425	3388	3357	3330	3309	3302	3306	3320	3338	3361	3384	3400	3406	3404		
50	3074	3066	3045	3014	2979	2949	2924	2904	2897	2900	2910	2924	2943	2961	2973	2975	2971		
55	2643	2635	2619	2594	2566	2541	2522	2507	2501	2501	2506	2514	2525	2535	2539	2536	2530		
60	2213	2209	2197	2179	2160	2147	2137	2129	2124	2122	2121	2119	2117	2116	2113	2105	2099		
65	1800	1798	1791	1781	1778	1779	1781	1780	1777	1773	1764	1749	1733	1718	1706	1695	1687		
70	1412	1411	1408	1411	1421	1436	1447	1453	1452	1445	1430	1406	1376	1346	1324	1312	1303		
75	1052	1052	1056	1069	1092	1116	1132	1141	1141	1132	1114	1085	1045	1004	972	955	945		
80	719	722	735	758	789	817	834	842	841	830	810	779	738	691	653	627	614		
85	418	428	448	479	510	535	550	555	553	541	519	488	448	403	362	334	318		
90	161	181	205	237	268	291	305	310	308	295	273	245	211	175	145	128	131		
95	72.8	61.7	51.2	62.7	82.6	104	118	124	122	113	96.0	76.1	58.1	48.9	59.7	84.0	90.1		
100	27.2	32.6	28.1	15.3	8.38	9.44	8.30	13.8	13.5	8.00	3.71	6.48	26.1	48.3	69.2	59.9	58.8		
105	1.91	14.9	38.6	58.7	56.0	49.0	42.7	39.9	40.3	44.3	52.2	63.5	75.7	71.7	49.2	34.1	33.3		
110	1.79	9.49	31.5	59.3	87.7	99.6	97.6	95.4	96.3	101	108	108	82.8	53.6	29.7	13.5	15.1		
115	3.41	5.75	22.4	45.8	70.2	90.5	106	115	118	114	103	86.3	65.1	40.4	16.8	3.29	3.90		
120	2.03	2.43	13.4	32.7	52.5	70.2	83.2	90.8	93.1	89.7	80.5	66.0	47.3	27.4	9.05	3.03	2.61		
125	2.37	2.44	6.45	20.5	36.5	50.6	61.6	68.3	70.2	67.0	58.9	46.8	31.9	15.7	3.98	2.93	2.80		
130	2.67	2.71	3.13	10.8	22.1	33.8	42.6	47.9	49.4	46.8	40.3	30.3	18.5	7.05	2.98	3.01	2.88		
135	2.82	2.89	2.66	3.34	11.5	19.5	26.1	30.3	31.5	29.3	24.4	17.3	8.67	3.19	2.93	3.06	2.89		
140	2.96	3.02	2.90	2.60	3.22	8.97	13.8	16.8	17.7	16.1	12.5	6.96	3.00	2.59	2.98	3.03	2.75		
145	2.82	3.07	3.04	2.92	2.67	2.73	3.85	5.91	6.61	5.39	3.01	2.53	2.57	2.93	2.98	2.99	2.94		
150	3.06	3.14	3.11	3.02	3.00	2.76	2.61	2.62	2.62	2.54	2.57	2.77	2.95	3.02	3.02	2.99	3.21		
155	3.34	3.01	3.09	3.09	3.08	3.03	2.96	2.97	2.92	2.91	2.97	2.97	3.01	3.03	3.13	2.94	3.33		
160	3.41	3.11	3.10	3.03	2.99	2.98	2.94	3.01	2.92	2.88	2.90	2.93	3.02	3.15	3.07	3.15	3.42		
165	3.51	3.42	3.13	2.97	2.98	2.90	2.82	2.84	2.78	2.72	2.82	3.08	3.28	3.22	3.20	3.48	3.60		
170	3.62	3.56	3.48	3.35	3.05	2.81	2.69	2.74	2.81	2.77	2.82	3.01	3.18	3.32	3.48	3.55	3.62		
175	3.72	3.66	3.63	3.56	3.47	3.33	3.18	3.21	3.41	3.44	3.37	3.31	3.48	3.55	3.54	3.61	3.73		
180	3.75	3.75	3.75	3.75	3.75	3.75	3.75	3.75	3.75	3.75	3.75	3.75	3.75	3.75	3.75	3.75	3.75		

C Range: 0 - 360DEG
 C Interval: 10.0DEG
 Test Speed: MEDIUM
 Temperature:25.3DEG
 Operators:
 Test Date:2015-08-19

γ Range: 0 - 180DEG
 γ Interval: 0.5DEG
 Test System:EVERFINE GO-R3000_V2 SYSTEM V2.0.289
 Humidity:65.0%
 Test Distance:10.000m [K=1.0000]
 Remarks: