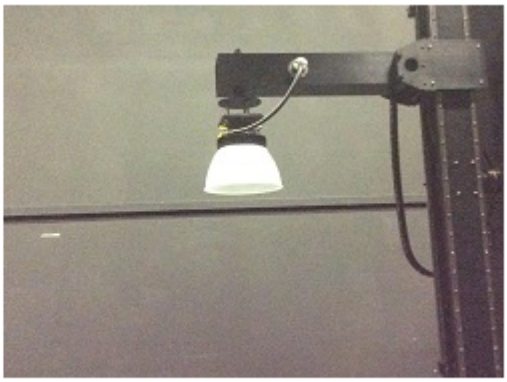
A.L.P.-LEXALITE

Test Report Number: 06233
Test Item Number: BETOP 60 WATT

Report Number	06233
Test Item	BETOP 60 WATT LED POD WITH LUMIEO S-12
Product Type	LOW BAY
Test Purpose	
Sales Order Reference	
Works Order Number	
Test Item Reference	
Lab Test Method Reference	
Test Standards	IESNA LM-79-08
Lab Location Reference	
Tested by	1860
Date of Test	12/12/2017
Number of products Tested	
Analysed By	
Authorised Date	

BETOP



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Product Name	BETOP 60 WATT LED POD WITH LUMIEO S-12
Part / Serial Number	
Type of Product	LOW BAY
Base Type	
Driver Type	60W MEANWELL
Operating Orientation	PENDENT
Test Orientation	PENDENT
Manufacturer	BETOP
Date of Manufacture	
Thermal Management	
Dimmable	

Test Time (minutes)	Ambient Temperature (deg C)	Relative Humidity (%RH)	Pre-burning Time (hours)	Stabilisation Time (minutes)
90.00	24.60	0.00	0.00	60.00

Photometric Measurements

Total Luminous Flux (lm)	Electrical Power (W)	Luminous Efficacy (lm/W)	Test Distance (m)
6763.1	58.80	115.02	6.78

Electrical Measurements

Power Factor	Power (W)	Voltage (V)	Current (A)	Apparent Power (VA)	Frequency (Hz)	Current THD (%)	Voltage THD (%)
1.00	58.80	119.97	0.49	0.00	60.00	6.72	0.00

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Zonal Lumen Summary

	Summary Zonal Lumens	Zonal Lumens - % Lamp	Zonal Lumens - % Fixture
0 to 30	2203.56	32.58	32.58
0 to 40	3378.46	49.95	49.95
0 to 60	4448.87	65.78	65.78
0 to 90	5712.78	84.47	84.47
40 to 90	2334.32	34.52	34.52
60 to 90	1263.91	18.69	18.69
90 to 180	1050.32	15.53	15.53
0 to 180	6763.10	100.00	100.00

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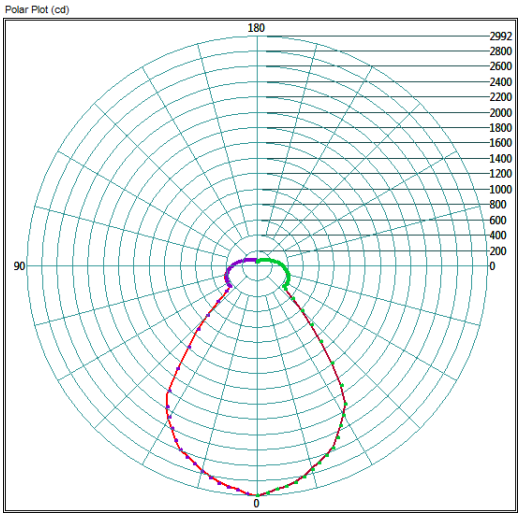
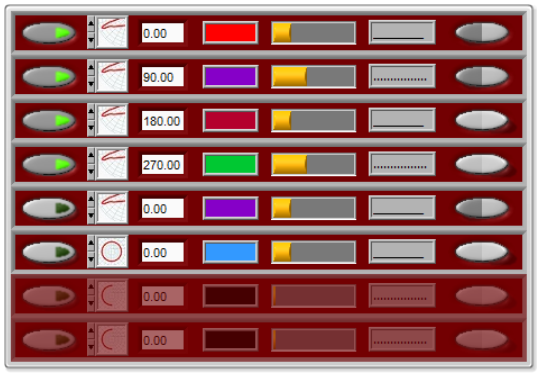
Luminaire Dimensions

Sample Diameter/ Length (mm)	Sample Width (mm)	Sample Height/ Depth (mm)	Luminous Diameter/ Length (mm)	Luminous Width (mm)	Luminous Height/ Depth (mm)	Luminous C0-plane (mm)	Luminous C90-plane (mm)	Luminous C180-plane (mm)	Luminous C270-plane (mm)
-304.80	-304.80	152.40	-304.80	-304.80	152.40	152.40	152.40	152.40	152.40

Polar Plot (cd)





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Coefficients of Utilisation

IES Spacing Criterion

Spacing Criterion (0 to 180)	Spacing Criterion (90 to 270)	Spacing Criterion (diagonal)
1.14	1.14	1.12

Proportion of Upward and Downward Flux from Luminaire

LOR (%)	Proportion of Upward Flux from Luminaire	Proportion of Downward Flux from Luminaire	Fixture Total Flux (lm)
100.00	0.00	0.00	6763.10

Table of Coefficients of Utilisation

RCC%	80	80	80	80	70	70	70	70	50	50	50	50	30	30	30	30	10	10	10	10	0	0	0	0
RW%	70	50	30	0	70	50	30	0	70	50	30	0	70	50	30	0	70	50	30	0	70	50	30	0
RFC%	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20
RCR = 0	1.15	1.15	1.15	1.15	1.11	1.11	1.11	1.11	1.02	1.02	1.02	1.02	0.95	0.95	0.95	0.95	0.88	0.88	0.88	0.88	0.84	0.84	0.84	0.84
RCR = 1	1.04	0.99	0.95	0.89	1.00	0.96	0.92	0.86	0.92	0.89	0.85	0.81	0.85	0.82	0.79	0.76	0.78	0.76	0.74	0.71	0.75	0.73	0.71	0.69
RCR = 2	0.96	0.88	0.81	0.73	0.92	0.85	0.79	0.71	0.84	0.79	0.74	0.68	0.78	0.73	0.69	0.64	0.71	0.68	0.65	0.61	0.69	0.65	0.63	0.59
RCR = 3	0.88	0.78	0.71	0.62	0.85	0.76	0.69	0.61	0.78	0.71	0.65	0.58	0.72	0.66	0.61	0.55	0.66	0.61	0.58	0.53	0.63	0.59	0.56	0.52
RCR = 4	0.82	0.71	0.63	0.54	0.78	0.68	0.61	0.53	0.72	0.64	0.58	0.51	0.66	0.60	0.55	0.49	0.61	0.56	0.52	0.47	0.59	0.54	0.50	0.46
RCR = 5	0.76	0.64	0.56	0.47	0.73	0.62	0.55	0.46	0.67	0.58	0.52	0.45	0.62	0.55	0.49	0.43	0.57	0.52	0.47	0.42	0.55	0.50	0.46	0.41
RCR = 6	0.71	0.59	0.50	0.42	0.68	0.57	0.49	0.41	0.63	0.54	0.47	0.40	0.58	0.50	0.45	0.39	0.54	0.48	0.43	0.37	0.52	0.46	0.42	0.37
RCR = 7	0.66	0.54	0.46	0.38	0.64	0.52	0.45	0.37	0.59	0.49	0.43	0.36	0.55	0.47	0.41	0.35	0.51	0.44	0.39	0.34	0.49	0.43	0.38	0.33
RCR = 8	0.62	0.50	0.42	0.34	0.60	0.48	0.41	0.34	0.55	0.46	0.39	0.33	0.51	0.43	0.38	0.32	0.48	0.41	0.36	0.31	0.46	0.40	0.35	0.31
RCR = 9	0.58	0.46	0.38	0.31	0.56	0.45	0.38	0.31	0.52	0.42	0.36	0.30	0.49	0.40	0.35	0.29	0.45	0.38	0.33	0.28	0.44	0.37	0.33	0.28
RCR = 10	0.55	0.43	0.35	0.29	0.53	0.42	0.35	0.28	0.49	0.40	0.33	0.28	0.46	0.38	0.32	0.27	0.43	0.36	0.31	0.26	0.42	0.35	0.31	0.26

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UGR Table

Reference Standard:
CIE 190:2010

UGR Table											
Ceiling Reflectance		70	70	50	50	30	70	70	50	50	30
Wall Reflectance		50	30	50	30	30	50	30	50	30	30
Floor Reflectance		20	20	20	20	20	20	20	20	20	20
Room dimensions X	Y	Viewed Crosswise					Viewed Endwise				
2H	2H	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	3H	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	4H	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	6H	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	8H	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	12H	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
4H	2H	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	3H	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	4H	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	6H	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	8H	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	12H	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
8H	4H	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	6H	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	8H	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	12H	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
12H	4H	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	6H	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	8H	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

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Candela Table (cd)

	0.0	22.5	45.0	67.5	90.0	112.5	135.0	157.5	180.0	202.5	225.0	247.5	270.0	292.5	315.0	337.5
0.0	2991.7	2991.7	2991.7	2991.7	2991.7	2991.7	2991.7	2991.7	2991.7	2991.7	2991.7	2991.7	2991.7	2991.7	2991.7	2991.7
2.5	2969.9	2970.8	2971.0	2970.6	2971.5	2971.7	2971.1	2972.1	2952.1	2951.8	2950.9	2950.9	2953.2	2955.1	2955.0	2951.7
5.0	2913.3	2919.5	2928.0	2927.1	2925.8	2928.3	2930.1	2921.4	2911.9	2921.4	2924.8	2919.1	2913.2	2918.5	2921.2	2914.4
7.5	2889.0	2898.8	2910.4	2911.8	2908.2	2912.6	2909.2	2897.2	2893.7	2902.1	2907.7	2901.2	2898.2	2908.9	2912.4	2900.2
10.0	2853.8	2869.4	2889.0	2883.9	2875.3	2885.7	2884.5	2863.0	2853.8	2869.1	2883.6	2870.5	2864.8	2884.0	2889.9	2873.3
12.5	2807.5	2835.7	2859.2	2853.3	2827.7	2854.8	2851.7	2826.6	2797.6	2831.2	2846.6	2835.6	2811.4	2846.3	2851.8	2836.4
15.0	2752.6	2794.4	2814.1	2813.6	2770.1	2809.9	2808.3	2785.6	2737.0	2780.9	2794.3	2787.4	2750.8	2794.7	2798.0	2789.2
17.5	2694.5	2743.8	2753.4	2752.0	2708.5	2752.7	2748.3	2730.1	2674.7	2724.0	2729.6	2722.8	2687.4	2731.1	2730.9	2723.5
20.0	2643.2	2682.4	2685.1	2679.1	2650.8	2683.5	2677.9	2663.4	2619.7	2648.4	2653.7	2647.7	2628.0	2653.3	2655.1	2647.7
22.5	2591.5	2607.4	2610.0	2599.7	2590.6	2599.4	2599.0	2587.3	2558.8	2561.3	2570.0	2566.1	2566.6	2567.4	2572.7	2566.7
25.0	2515.2	2522.3	2518.2	2513.0	2505.1	2503.0	2501.1	2500.3	2459.0	2455.7	2457.6	2466.4	2470.5	2465.4	2467.8	2468.4
27.5	2398.3	2402.6	2395.3	2394.4	2384.8	2380.8	2379.8	2381.3	2332.6	2332.1	2332.9	2343.8	2347.9	2342.5	2345.2	2345.3
30.0	2298.6	2294.8	2291.0	2288.9	2281.1	2277.3	2275.8	2278.3	2228.4	2230.0	2230.6	2242.0	2246.3	2241.4	2240.9	2241.0
32.5	2200.3	2198.7	2192.2	2188.6	2180.2	2177.0	2175.0	2179.2	2117.0	2112.5	2112.5	2130.0	2138.5	2133.4	2131.7	2136.0
35.0	2030.8	2021.3	1997.8	2008.8	1995.1	1985.5	1972.3	1996.0	1885.2	1872.4	1872.7	1895.8	1903.9	1902.4	1900.4	1914.0
37.5	1726.5	1731.2	1737.1	1719.0	1692.6	1694.8	1714.5	1701.4	1578.9	1584.0	1598.9	1588.6	1589.1	1600.6	1634.3	1607.5
40.0	1407.1	1438.6	1445.0	1424.5	1380.7	1406.4	1423.3	1408.9	1273.9	1301.0	1301.9	1298.4	1280.5	1310.5	1329.2	1313.3
42.5	1143.2	1158.6	1160.7	1149.2	1127.0	1132.6	1139.2	1130.1	1031.8	1022.6	1021.7	1031.2	1046.4	1039.9	1044.9	1040.2
45.0	923.3	904.7	894.5	906.8	911.4	889.1	876.2	889.1	815.0	792.0	779.2	808.4	829.6	809.8	802.4	815.1
47.5	696.4	690.0	677.5	697.5	690.8	681.4	665.4	677.2	611.2	607.7	600.3	618.1	625.1	621.4	615.5	619.2
50.0	521.9	524.4	527.0	526.0	518.3	519.2	519.9	514.0	471.2	476.4	481.6	480.0	481.2	483.1	486.4	477.8
52.5	437.2	438.7	438.8	438.3	436.9	437.9	437.4	437.9	429.0	431.9	434.0	433.0	430.0	428.4	426.5	425.5
55.0	436.6	436.3	437.0	437.4	438.8	438.3	438.7	440.2	435.2	438.2	440.1	439.2	436.3	434.6	432.6	431.5
57.5	442.0	441.7	441.6	442.2	443.5	442.8	443.6	445.5	439.8	442.8	445.0	443.8	441.5	439.4	437.7	436.7
60.0	445.5	444.1	443.9	443.9	444.9	444.6	444.7	446.9	440.5	444.1	446.3	445.7	443.6	441.6	440.1	439.0
62.5	445.6	444.5	443.6	443.3	444.5	443.6	444.5	446.1	439.7	442.7	445.3	444.9	443.1	441.1	439.4	438.5
65.0	444.5	443.3	441.8	441.3	441.9	441.6	442.0	444.1	436.4	439.3	442.0	442.5	440.2	438.4	437.0	436.1
67.5	441.3	440.0	438.9	437.5	438.1	437.7	438.1	440.1	431.4	434.4	437.1	437.2	436.4	434.2	433.1	432.5
70.0	436.9	435.3	433.2	432.0	432.1	431.5	432.0	434.3	424.7	427.9	430.1	430.8	429.9	428.3	427.7	426.8
72.5	429.7	428.5	426.2	424.6	423.9	423.7	424.4	426.3	416.7	419.5	421.7	422.9	422.1	420.9	420.1	419.6
75.0	422.0	420.1	417.5	415.9	415.3	414.9	415.5	417.2	406.6	409.3	411.5	412.9	412.7	411.3	410.9	410.7
77.5	411.9	409.8	407.4	405.0	404.4	404.1	404.8	405.9	394.9	397.3	399.7	401.0	401.1	399.9	399.5	399.4
80.0	399.0	397.4	394.6	391.7	391.3	390.7	391.1	392.1	381.8	383.8	385.9	387.5	388.1	387.2	386.8	386.6
82.5	384.6	382.9	379.5	377.2	376.5	375.7	376.2	377.2	367.0	369.0	371.2	373.0	373.8	372.8	372.7	372.9
85.0	369.4	367.3	364.4	361.5	360.9	359.4	360.3	361.3	351.4	353.1	355.5	357.3	357.9	357.2	357.7	357.9
87.5	353.8	351.6	348.2	345.5	344.6	343.6	344.0	344.8	335.3	337.5	339.2	340.9	341.9	341.8	342.2	342.5
90.0	337.1	335.2	332.0	329.5	328.0	326.6	326.8	327.6	318.9	320.9	322.9	324.2	325.6	325.2	326.0	326.3
92.5	323.6	321.7	318.4	315.7	314.6	313.2	313.3	313.5	304.6	306.3	308.0	310.2	311.0	311.3	312.2	312.6
95.0	308.3	306.5	303.5	300.7	299.7	298.1	297.6	297.9	289.4	290.5	291.6	294.1	295.3	295.5	296.5	297.2
97.5	291.1	289.6	286.3	283.4	282.3	281.1	280.6	280.3	271.8	272.5	273.6	276.0	277.9	277.9	278.4	280.1
100.0	272.3	271.1	268.3	265.1	264.1	262.4	262.0	261.3	253.1	252.9	254.6	256.4	258.4	258.9	259.6	260.5
102.5	251.7	250.8	248.3	245.0	244.6	242.9	242.5	241.5	233.6	233.1	235.2	237.1	238.4	239.2	240.0	240.7
105.0	231.9	231.6	227.9	225.3	225.2	224.1	223.7	222.6	214.7	215.2	216.2	218.2	219.5	219.7	221.2	222.7
107.5	215.2	214.4	209.8	208.0	207.9	207.8	206.9	206.0	199.0	198.9	200.0	201.8	203.2	203.7	205.1	206.5
110.0	199.9	199.2	193.8	192.7	193.1	193.5	192.9	191.4	184.8	185.0	186.6	187.3	188.8	189.6	191.1	192.3
112.5	186.4	184.6	179.9	179.3	180.0	180.8	179.9	178.7	172.8	172.5	173.8	174.9	176.4	177.3	178.5	180.2
115.0	175.0	170.9	167.4	167.5	168.1	169.7	168.6	167.8	162.0	161.9	162.5	163.8	165.0	166.2	167.7	168.9
117.5	164.3	158.9	156.4	158.1	157.9	159.8	158.8	158.1	152.6	152.8	153.4	154.8	155.6	157.0	158.2	159.4
120.0	153.3	147.6	146.9	148.8	148.7	151.0	150.4	149.7	143.9	144.0	144.8	145.7	147.3	148.1	149.2	150.3
122.5	143.1	137.8	138.9	139.8	139.9	142.4	142.3	141.1	135.9	136.5	136.7	137.3	138.7	139.9	140.8	142.0
125.0	133.1	129.1	130.2	131.9	131.7	133.9	134.5	133.4	128.6	128.9	129.6	130.0	131.2	132.4	133.5	134.2
127.5	124.9	122.3	123.5	125.0	125.1	126.7	127.7	126.8	122.3	122.9	123.0	123.4	124.6	125.5	126.9	127.6
130.0	117.6	116.5	117.1	118.5	118.8	119.7	121.8	120.9	116.6	116.9	117.2	117.7	118.7	119.7	120.7	121.4
132.5	111.6	110.9	111.7	113.2	113.1	113.8	116.0	115.1	110.8	111.3	111.5	112.1	112.8	114.0	114.8	115.4

A.L.P.-LEXALITE

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Candela Table (cd)

	360.0
0.0	2991.7
2.5	2969.9
5.0	2913.3
7.5	2889.0
10.0	2853.8
12.5	2807.5
15.0	2752.6
17.5	2694.5
20.0	2643.2
22.5	2591.5
25.0	2515.2
27.5	2398.3
30.0	2298.6
32.5	2200.3
35.0	2030.8
37.5	1726.5
40.0	1407.1
42.5	1143.2
45.0	923.3
47.5	696.4
50.0	521.9
52.5	437.2
55.0	436.6
57.5	442.0
60.0	445.5
62.5	445.6
65.0	444.5
67.5	441.3
70.0	436.9
72.5	429.7
75.0	422.0
77.5	411.9
80.0	399.0
82.5	384.6
85.0	369.4
87.5	353.8
90.0	337.1
92.5	323.6
95.0	308.3
97.5	291.1
100.0	272.3
102.5	251.7
105.0	231.9
107.5	215.2
110.0	199.9
112.5	186.4
115.0	175.0
117.5	164.3
120.0	153.3
122.5	143.1
125.0	133.1
127.5	124.9
130.0	117.6
132.5	111.6

A.L.P.-LEXALITE

Test Report Number: 06233
Test Item Number: BETOP 60 WATT

Candela Table (cd)

	0.0	22.5	45.0	67.5	90.0	112.5	135.0	157.5	180.0	202.5	225.0	247.5	270.0	292.5	315.0	337.5
135.0	105.9	106.3	106.9	108.1	107.7	108.5	110.8	110.0	106.0	106.1	106.5	106.9	107.8	108.6	109.6	109.9
137.5	101.1	101.3	102.0	103.1	103.1	103.3	105.5	105.1	101.0	101.3	101.4	102.0	102.9	103.5	104.2	104.8
140.0	96.8	97.2	97.9	98.6	98.5	98.5	100.3	100.6	96.5	97.1	97.2	97.6	98.5	99.4	99.8	100.2
142.5	93.0	93.7	94.3	94.6	94.4	94.2	95.7	95.8	93.0	93.2	93.1	93.6	94.5	95.5	95.8	96.4
145.0	90.1	90.6	90.7	91.3	90.8	91.0	91.5	91.8	89.4	89.9	89.9	89.9	91.1	91.9	92.3	92.9
147.5	87.3	87.9	87.9	88.5	88.4	88.0	88.1	88.1	86.8	87.3	87.2	87.1	88.2	88.9	89.3	89.9
150.0	85.0	85.3	85.1	86.0	85.7	85.3	85.1	84.8	84.7	84.0	84.9	84.7	86.1	86.4	86.9	86.9
152.5	82.8	82.7	82.8	83.6	83.6	82.2	82.7	82.2	82.5	81.9	82.0	82.4	83.6	83.8	84.5	84.3
155.0	80.5	80.5	80.0	81.0	81.2	80.3	80.2	79.6	80.0	79.4	80.0	80.1	81.1	81.0	81.8	81.6
157.5	77.8	77.9	77.4	78.1	78.0	77.5	76.9	76.8	77.1	76.9	77.0	77.4	78.2	78.6	78.7	79.0
160.0	74.6	74.6	74.2	74.9	75.0	74.0	73.2	73.9	73.9	73.7	73.8	74.0	74.9	75.5	75.3	75.9
162.5	70.8	70.9	70.9	71.5	71.4	70.7	69.8	71.4	70.6	70.5	70.1	71.2	71.4	71.8	71.5	72.6
165.0	67.0	66.8	67.1	67.7	67.5	66.8	66.6	67.6	66.8	67.0	66.4	67.7	67.6	68.3	68.0	69.1
167.5	62.8	62.7	63.0	63.5	63.3	62.5	62.9	64.0	63.3	62.8	62.5	63.8	63.7	64.3	64.0	64.8
170.0	59.0	59.1	59.1	59.1	59.4	58.6	59.3	60.5	59.1	59.1	58.9	59.7	59.8	60.1	60.0	60.4
172.5	54.7	54.7	54.8	54.9	54.7	54.4	55.6	56.5	55.3	55.0	54.7	55.3	55.8	56.1	55.6	56.3
175.0	51.6	51.7	51.1	51.7	52.1	52.0	52.9	53.2	52.9	52.2	51.8	52.8	54.0	53.0	53.0	53.7
177.5	52.9	52.4	52.3	53.3	54.1	54.6	53.9	54.8	54.3	53.3	52.7	53.8	55.7	54.1	53.7	54.7
180.0	54.7	54.7	54.7	54.7	54.7	54.7	54.7	54.7	54.7	54.7	54.7	54.7	54.7	54.7	54.7	54.7

A.L.P.-LEXALITE

Test Report Number: 06233
Test Item Number: BETOP 60 WATT

Candela Table (cd)

	360.0
135.0	105.9
137.5	101.1
140.0	96.8
142.5	93.0
145.0	90.1
147.5	87.3
150.0	85.0
152.5	82.8
155.0	80.5
157.5	77.8
160.0	74.6
162.5	70.8
165.0	67.0
167.5	62.8
170.0	59.0
172.5	54.7
175.0	51.6
177.5	52.9
180.0	54.7