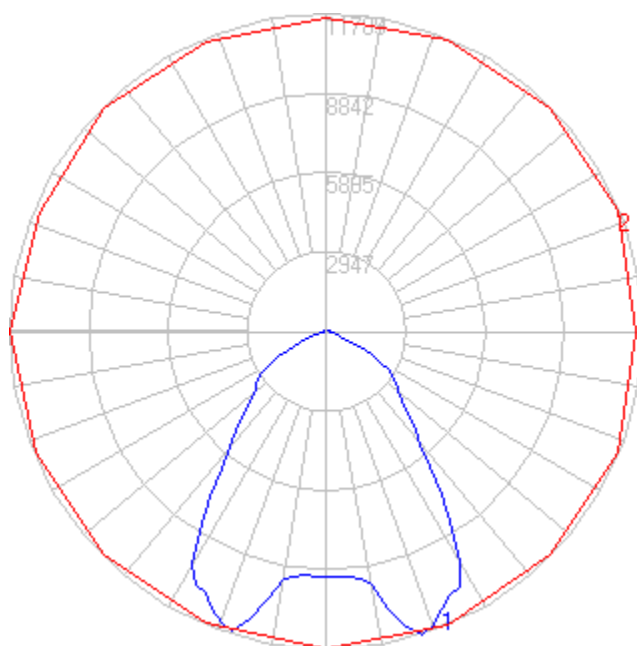




10163 US HWY 31 North, Charlevoix, MI 49720 231-547-6584

Test Report Number	05795
Date of Test	10/31/2016
Manufacturer	BETOP
Catalog Number	BT-HL200W
Test Item	BETOP LED POD WITH 350 LEDS IN A CIRCULAR PATTERN WITH FLAT CLEAR LENS, PC S16
Lamp	HL200W-350L
Operating Orientation	PENDENT
Driver Type	INTERNAL
Test Time	90 MINUTES
Ambient Temperature (C)	24.2
Stabilization Time	66 MINUTES
Power Factor	.992
Power (W)	198.57
Voltage(V)	119.97
Current(A)	1.6688
Notes	DATA SHOWN IS ABSOLUTE FOR THE SAMPLE PROVIDED AT RATED INPUT VOLTAGE (120Vac, 60Hz)
Luminous Flux	22451.48
Luminous Efficacy	113.07
Test Distance	22.25 FEET
Test Equipment	GONIOPHOTOMETER
LAB Test Method Reference	IESNA LM-79-08
Technician	CG
Spacing Criterion(0-180)	1.36
Spacing Criterion(90-270)	1.36
Spacing Criterion(diagonal)	1.24
Sample Width(mm)	
Sample Height/Depth(mm)	
Luminous Diameter/Length(mm)	
Luminous Width(mm)	
Luminous Height/Depth(mm)	



Coefficients Of Utilization - Zonal Cavity Method

Effective Floor Cavity Reflectance 0.20

RC	80				70				50				30				10				0
RW70	50	30	10		70	50	30	10		50	30	10		50	30	10		50	30	10	0
0	118	118	118	118	115	115	115	115		110	110	110		105	105	105		100	100	100	98
1	111	107	103	100	108	104	101	98		100	97	95		95	93	92		92	90	89	86
2	102	96	90	85	100	94	89	84		90	86	82		86	83	80		83	80	78	76
3	95	86	79	74	92	84	78	73		81	76	71		78	74	70		75	72	68	66
4	88	78	70	64	86	76	69	64		73	67	63		71	66	62		69	64	61	59
5	82	70	63	57	79	69	62	56		67	61	56		65	59	55		63	58	54	52
6	76	64	56	51	74	63	56	50		61	55	50		59	54	49		58	53	49	47
7	71	59	51	45	69	58	50	45		56	50	45		55	49	44		53	48	44	42
8	66	54	46	41	65	53	46	41		52	45	41		50	45	40		49	44	40	38
9	62	50	42	37	61	49	42	37		48	42	37		47	41	37		46	40	36	35
10	58	46	39	34	57	46	39	34		45	38	34		44	38	34		43	37	33	32

Zonal Lumen Summary

	Summary Zonal Lumens	Zonal Lumens-% Lamp	Zonal Lumens-% Fixture
0-30	9033.57		40.24%
0-40	13732.42		61.16%
0-60	19942.84		88.83%
0-90	21920.37		97.63%
90-110	242.65		1.08%
90-130	373.56		1.66%
90-150	483.78		2.15%
90-180	531.11		2.37%

	Zonal Lumens		Zonal Lumens
0-10	867.23	170-180	4.74
10-20	3162.23	160-170	14.47
20-30	5004.11	150-160	28.12
30-40	4698.85	140-150	49.56
40-50	3421.39	130-140	60.66
50-60	2789.03	120-130	60.66
60-70	1549.95	110-120	70.25
70-80	301.70	100-110	120.45
80-90	125.88	90-100	122.20

Candela Table

	0.00	22.50	45.00	67.50	90.00	112.50	135.00	157.50	180.00	202.50	225.00	247.50	270.00	292.50	315.00	337.50	360.00
0.00	9105.4	9105.4	9105.4	9105.4	9105.4	9105.4	9105.4	9105.4	9105.4	9105.4	9105.4	9105.4	9105.4	9105.4	9105.4	9105.4	9105.4
2.50	9102.0	9101.9	9100.6	9098.3	9104.4	9102.0	9096.9	9098.3	9108.8	9111.1	9107.7	9111.2	9111.2	9114.4	9115.2	9114.5	9102.0
5.00	9106.0	9104.4	9104.9	9108.3	9110.4	9104.9	9098.3	9092.8	9146.7	9146.3	9147.7	9153.0	9159.9	9165.3	9165.8	9167.4	9106.0
7.50	9168.7	9165.1	9165.6	9167.8	9163.6	9155.3	9143.4	9135.1	9229.0	9227.2	9230.7	9241.5	9250.9	9270.0	9278.6	9293.0	9168.7
10.00	9397.0	9404.3	9401.7	9390.6	9390.4	9355.8	9311.1	9276.9	9442.1	9417.2	9417.7	9449.2	9495.9	9544.7	9568.9	9613.9	9397.0
12.50	10188.0	10292.9	10313.0	10293.6	10251.5	10177.9	10106.2	9992.2	10257.9	10177.5	10163.1	10225.2	10339.3	10518.5	10614.4	10665.7	10188.0
15.00	11143.7	11220.8	11297.7	11246.9	11168.4	11064.9	11022.7	10836.6	11122.3	11046.5	11088.8	11157.7	11246.3	11364.0	11386.1	11399.9	11143.7
17.50	11495.5	11744.4	11768.8	11738.0	11658.1	11646.0	11679.8	11556.5	11767.7	11704.1	11712.4	11751.3	11762.9	11789.4	11716.6	11761.9	11495.5
20.00	11545.2	11543.7	11607.1	11620.3	11596.4	11495.7	11528.2	11623.3	11630.8	11622.6	11578.8	11627.1	11701.7	11621.3	11565.9	11408.4	11545.2
22.50	11134.1	11162.5	11197.6	11138.6	11021.2	11123.4	11160.3	11192.5	11130.2	11264.5	11240.5	11157.9	11083.5	11154.6	11113.1	11110.8	11134.1
25.00	10929.6	10856.9	10783.3	10733.3	10714.9	10696.0	10781.4	10856.2	10877.4	10859.3	10773.4	10696.8	10754.6	10804.8	10816.4	10872.3	10929.6
27.50	10718.7	10696.1	10687.9	10661.7	10605.6	10586.4	10582.0	10616.9	10535.2	10598.7	10557.6	10574.6	10628.1	10687.5	10656.3	10591.8	10718.7
30.00	10158.7	10171.3	10080.6	10101.2	9989.1	10029.0	10162.4	10216.2	9959.4	10023.2	10116.2	10012.1	9990.0	9957.6	9889.7	9740.0	10158.7
32.50	8900.3	8816.7	8778.6	8775.3	8703.3	8780.3	8895.3	9010.1	8728.5	8848.2	8839.7	8790.4	8733.9	8683.6	8605.5	8447.2	8900.3
35.00	7556.0	7499.5	7450.1	7468.2	7464.9	7531.2	7588.3	7711.4	7426.6	7499.0	7492.0	7482.9	7480.8	7444.8	7356.0	7190.5	7556.0
37.50	6422.4	6370.5	6334.2	6355.2	6348.4	6435.4	6513.5	6594.6	6314.6	6365.0	6347.8	6350.8	6366.8	6338.3	6272.7	6163.7	6422.4
40.00	5607.3	5550.2	5503.3	5491.6	5520.5	5593.4	5652.7	5699.3	5530.7	5555.3	5540.2	5543.3	5519.9	5458.5	5452.5	5426.8	5607.3
42.50	4959.9	4940.7	4926.4	4921.4	4965.3	5004.7	5001.1	5049.2	4860.5	4937.0	4970.0	4986.0	4953.1	4916.5	4916.8	4803.1	4959.9
45.00	4450.1	4388.3	4366.5	4457.2	4443.9	4467.2	4464.0	4472.0	4400.8	4388.5	4412.1	4458.3	4465.5	4423.9	4340.9	4297.6	4450.1
47.50	3877.1	3837.9	3829.0	3851.6	3844.2	3859.3	3889.6	3947.7	3803.2	3850.1	3857.5	3865.7	3848.4	3839.9	3803.7	3720.2	3877.1
50.00	3488.2	3467.8	3448.4	3462.6	3453.8	3452.9	3473.1	3492.7	3453.8	3495.7	3484.4	3491.7	3468.3	3450.8	3472.9	3470.6	3488.2
52.50	3406.4	3371.6	3351.3	3378.9	3349.0	3343.2	3370.4	3374.9	3359.3	3379.6	3365.7	3373.7	3365.0	3354.9	3342.6	3333.1	3406.4
55.00	3151.7	3121.4	3090.8	3118.8	3100.5	3091.0	3121.2	3157.7	3096.8	3119.6	3109.1	3118.8	3105.4	3085.9	3071.0	3046.4	3151.7
57.50	2832.1	2791.7	2766.7	2773.4	2771.3	2754.6	2793.5	2827.8	2777.7	2820.6	2791.6	2802.4	2770.4	2753.8	2742.8	2721.9	2832.1
60.00	2467.9	2431.7	2410.5	2403.4	2404.7	2395.3	2447.6	2488.2	2409.7	2472.6	2444.7	2434.7	2402.9	2392.8	2381.5	2372.9	2467.9
62.50	2094.1	2028.8	1997.3	1992.2	2007.4	2012.7	2065.3	2092.3	2005.8	2054.2	2046.0	2035.3	2013.9	1994.7	1965.4	1960.1	2094.1
65.00	1600.0	1558.8	1532.2	1541.6	1548.0	1586.3	1621.0	1624.0	1511.8	1587.7	1597.8	1591.8	1557.6	1530.0	1491.2	1455.1	1600.0
67.50	1056.0	1005.9	972.8	990.8	1007.5	1060.9	1095.4	1102.1	997.2	1051.9	1054.6	1037.0	1004.3	974.9	940.2	903.8	1056.0
70.00	576.0	561.8	548.8	557.8	576.5	600.7	631.4	635.9	576.1	609.0	606.1	578.4	559.4	538.3	525.7	507.6	576.0
72.50	387.3	383.0	383.5	395.4	411.8	417.7	439.5	447.0	423.6	426.5	416.7	391.4	374.0	359.8	354.4	351.5	387.3
75.00	267.4	266.8	273.6	285.9	299.5	305.8	327.9	338.9	318.0	311.9	296.2	278.1	265.2	254.0	248.5	242.7	267.4
77.50	187.3	187.0	193.7	203.1	210.9	219.7	234.9	246.0	229.8	221.4	208.2	194.4	182.2	177.6	175.6	170.7	187.3
80.00	143.7	145.0	150.9	157.2	160.4	163.5	170.5	176.7	167.0	161.9	150.9	145.2	141.2	141.4	140.2	137.0	143.7
82.50	122.3	123.3	127.4	132.0	132.8	133.4	135.7	138.6	133.6	129.3	125.6	123.7	123.4	122.3	120.2	120.4	122.3
85.00	112.4	112.4	116.1	119.5	119.1	118.4	118.6	119.9	118.5	115.4	115.1	113.3	113.9	113.2	111.3	111.9	112.4
87.50	107.3	105.7	110.5	113.9	114.2	112.5	112.6	113.5	112.4	113.7	111.8	110.5	110.7	110.6	107.1	105.9	107.3
90.00	104.7	102.9	107.4	109.2	110.9	105.7	104.3	110.3	111.1	116.1	110.7	113.6	105.9	104.6	102.2	105.4	104.7
92.50	107.6	108.3	110.1	113.1	120.5	113.2	113.7	119.3	117.7	117.7	118.1	117.8	110.0	110.5	110.6	106.8	107.6
95.00	109.8	111.5	108.2	110.9	118.5	114.5	116.7	116.7	113.5	112.9	115.3	108.6	104.7	107.3	113.4	111.8	109.8
97.50	119.4	121.1	115.0	117.1	123.5	121.7	122.3	115.5	120.3	123.7	118.8	114.6	108.5	116.2	123.8	121.1	119.4
100.00	120.8	120.1	114.3	112.5	124.0	120.3	121.6	118.7	124.1	124.7	120.7	116.3	112.7	116.4	122.6	125.7	120.8
102.50	123.2	124.6	116.3	115.7	124.6	121.2	124.3	122.2	128.4	126.0	123.5	121.0	116.9	119.5	127.9	127.7	123.2
105.00	111.8	113.2	105.9	108.8	111.9	111.3	117.7	116.8	116.1	119.8	118.3	116.0	115.9	112.9	113.2	114.0	111.8
107.50	99.3	95.4	96.9	103.5	98.3	97.7	101.7	108.6	105.9	105.8	100.6	107.6	107.8	104.8	97.4	93.8	99.3
110.00	83.3	81.4	84.4	90.0	84.7	85.4	86.8	92.2	89.1	89.8	90.3	91.3	94.1	91.7	84.9	81.7	83.3
112.50	75.8	73.6	75.2	77.8	76.0	76.5	76.3	80.8	73.4	72.7	74.4	82.8	76.7	75.6	75.0	73.1	75.8
115.00	72.0	69.9	70.0	71.4	71.0	71.5	70.8	72.4	69.4	69.3	70.5	71.9	70.5	70.3	70.0	69.8	72.0
117.50	70.2	68.8	68.4	69.1	68.9	68.9	68.0	69.4	67.9	67.7	68.0	68.0	68.0	68.4	68.0	68.6	70.2
120.00	69.9	69.0	68.1	67.4	67.8	67.7	66.8	67.9	67.3	67.9	68.1	67.7	66.7	67.5	67.6	69.1	69.9
122.50	69.4	69.3	68.2	67.3	67.4	67.4	67.1	67.4	66.7	67.9	67.2	67.2	66.7	67.3	67.5	68.9	69.4
125.00	69.3	69.5	68.6	67.5	67.2	67.3	66.9	66.7	66.2	68.0	67.9	66.7	66.1	66.9	67.0	68.6	69.3
127.50	70.3	70.3	69.3	67.7	67.6	68.1	67.4	66.3	65.6	68.2	68.2	67.3	66.2	66.9	66.8	68.6	70.3
130.00	74.5	74.8	73.8	71.1	70.7	71.0	70.7	69.0	68.8	71.9	71.3	70.2	69.6	71.2	71.7	73.4	74.5

[illegible]