



IES INDOOR REPORT

PHOTOMETRIC FILENAME : BPEN-PRO-LED35-SO.IES

DESCRIPTION INFORMATION (From Photometric File)

IESNA:LM-63-2002
 [TEST] BPEN-PRO-LED35-SO
 [TESTLAB] IN TERTEK
 [ISSUE DATE] 8-13-18
 [MANUFAC] PRUDENTIAL
 [_TOTALLUMINAIRELUMENS] 5093.7

CHARACTERISTICS

Lumens Per Lamp	N.A. (absolute)
Total Lamp Lumens	N.A. (absolute)
Luminaire Lumens	11462
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	122
Total Luminaire Watts	94
Ballast Factor	1.00
CIE Type	Semi-Direct
Spacing Criterion (0-180)	1.24
Spacing Criterion (90-270)	1.24
Spacing Criterion (Diagonal)	1.38
Basic Luminous Shape	Rectangular w/Sides
Luminous Length (0-180)	2.13 ft
Luminous Width (90-270)	0.17 ft
Luminous Height	0.15 ft

LUMINANCE DATA (cd/sq.m)

Angle In Degrees	Average 0-Deg	Average 45-Deg	Average 90-Deg
45	82808	52491	47407
55	83061	46249	40975
65	85311	39820	34681
75	91873	32687	27798
85	121111	24497	20172

IES INDOOR REPORT
PHOTOMETRIC FILENAME : BPEN-PRO-LED35-SO.IES

CANDELA TABULATION

	<u>0.0</u>	<u>22.5</u>	<u>45.0</u>	<u>67.5</u>	<u>90.0</u>	<u>112.5</u>	<u>135.0</u>	<u>157.5</u>	<u>180.0</u>	<u>202.5</u>
0.0	3113.325	3113.325	3113.325	3113.325	3113.325	3113.325	3113.325	3113.325	3113.325	3113.325
2.5	3098.250	3095.775	3102.075	3102.975	3104.100	3105.225	3112.200	3118.725	3124.125	3118.725
5.0	3089.250	3091.725	3097.800	3107.475	3105.225	3098.025	3096.225	3109.050	3108.150	3109.050
7.5	3090.375	3067.200	3084.075	3078.900	3074.400	3079.350	3087.675	3082.950	3072.375	3082.950
10.0	3057.975	3044.475	3047.400	3047.625	3053.250	3044.250	3059.550	3065.625	3044.250	3065.625
12.5	3020.625	3017.700	3011.175	3013.650	3021.525	3006.000	3020.400	3036.600	3007.800	3036.600
15.0	2976.300	2971.800	2967.075	2973.825	2976.750	2963.025	2980.350	2992.950	2964.600	2992.950
17.5	2924.325	2916.900	2912.850	2929.050	2921.175	2923.650	2941.875	2936.250	2916.000	2936.250
20.0	2863.350	2856.600	2860.425	2867.400	2862.900	2864.700	2890.125	2887.200	2857.500	2887.200
22.5	2795.850	2792.475	2796.525	2812.050	2805.975	2790.450	2823.525	2818.125	2792.250	2818.125
25.0	2727.225	2722.950	2705.850	2721.600	2748.375	2716.425	2744.775	2743.200	2722.725	2743.200
27.5	2645.325	2628.225	2628.900	2645.100	2648.925	2642.850	2668.500	2666.250	2665.575	2666.250
30.0	2570.625	2546.100	2545.200	2567.475	2566.575	2565.675	2588.400	2589.525	2590.425	2589.525
32.5	2486.250	2459.925	2459.250	2485.575	2483.775	2485.800	2517.075	2509.875	2505.375	2509.875
35.0	2403.675	2375.775	2380.950	2411.775	2404.125	2417.400	2428.425	2435.400	2417.175	2435.400
37.5	2315.475	2291.175	2290.725	2320.425	2316.825	2330.325	2346.075	2354.400	2333.475	2354.400
40.0	2229.975	2205.900	2208.375	2234.475	2242.350	2240.325	2265.075	2272.275	2254.050	2272.275
42.5	2145.150	2118.375	2124.000	2154.375	2151.225	2157.300	2184.075	2189.025	2174.850	2189.025
45.0	2060.775	2034.675	2038.050	2070.900	2070.000	2078.325	2103.075	2107.350	2101.950	2107.350
47.5	1976.850	1949.400	1957.950	1989.225	1988.775	1997.100	2021.850	2036.475	2026.575	2036.475
50.0	1893.825	1865.250	1871.550	1906.425	1908.900	1917.900	1942.425	1949.850	1944.900	1949.850
52.5	1808.100	1781.550	1790.325	1822.500	1825.425	1836.675	1861.200	1868.175	1859.850	1868.175
55.0	1722.825	1696.050	1706.175	1740.825	1741.275	1757.475	1776.375	1790.100	1780.425	1790.100
57.5	1636.425	1611.000	1617.975	1656.900	1658.700	1672.425	1691.775	1704.150	1704.600	1704.150
60.0	1542.150	1520.775	1532.025	1567.125	1570.275	1583.775	1607.850	1621.800	1611.450	1621.800
62.5	1451.925	1428.750	1440.675	1476.900	1479.825	1494.000	1516.500	1528.875	1518.525	1528.875
65.0	1362.150	1338.525	1347.300	1387.800	1388.475	1400.625	1424.925	1438.425	1427.400	1438.425
67.5	1269.900	1244.250	1257.300	1295.100	1297.800	1307.250	1332.450	1344.600	1337.625	1344.600
70.0	1175.175	1150.200	1163.925	1201.050	1206.225	1210.050	1237.050	1251.450	1241.100	1251.450
72.5	1075.950	1054.125	1067.625	1109.250	1109.025	1113.975	1141.875	1151.550	1141.200	1151.550
75.0	983.700	960.075	972.450	1014.750	1010.700	1017.000	1043.325	1054.125	1040.400	1054.125
77.5	894.150	866.250	877.725	920.025	915.075	918.450	949.275	956.925	945.225	956.925
80.0	796.050	774.000	785.925	830.025	819.675	822.825	856.125	862.875	845.550	862.875
82.5	708.525	685.125	694.125	736.425	730.125	727.650	762.525	768.825	751.050	768.825
85.0	620.325	596.925	606.600	647.100	636.975	632.700	672.075	674.775	649.800	674.775
87.5	522.225	481.950	486.450	527.625	513.450	494.325	523.575	520.875	488.250	520.875
90.0	331.875	301.950	305.775	347.625	331.650	313.425	343.800	337.500	307.800	337.500
92.5	303.300	278.325	280.800	323.100	306.450	291.825	319.950	315.225	287.550	315.225
95.0	346.950	323.550	322.875	355.725	333.900	329.400	375.525	385.875	376.200	385.875
97.5	355.500	324.000	328.950	364.275	362.475	334.575	355.500	360.000	350.325	360.000
100.0	294.975	282.375	295.425	344.700	341.100	319.050	324.675	308.925	279.900	308.925
102.5	264.600	259.875	279.225	322.875	318.150	303.075	307.575	285.525	246.825	285.525
105.0	258.525	249.975	265.950	308.925	304.200	287.775	298.350	274.500	239.625	274.500
107.5	256.950	241.425	258.750	297.000	290.925	281.025	290.250	264.825	244.350	264.825
110.0	255.150	243.225	248.625	282.825	272.700	271.350	277.650	254.025	243.900	254.025
112.5	244.125	231.075	232.425	261.450	251.775	253.350	259.425	234.900	231.975	234.900
115.0	224.100	218.925	220.725	235.800	232.425	229.500	229.500	216.675	215.775	216.675
117.5	216.450	206.100	203.400	217.575	214.875	206.550	205.875	202.950	201.825	202.950
120.0	209.700	197.550	189.225	204.300	199.125	188.550	193.500	191.925	189.450	191.925
122.5	193.050	185.175	173.700	195.075	182.250	170.100	183.375	177.975	181.575	177.975
125.0	184.050	177.525	165.600	182.025	168.525	155.925	171.900	167.850	167.400	167.850
127.5	176.175	165.825	155.925	174.150	155.925	143.775	162.000	156.600	159.300	156.600
130.0	167.175	156.150	147.600	165.825	146.025	135.000	153.225	148.275	154.800	148.275
132.5	158.625	150.750	144.675	152.550	137.925	129.600	143.550	141.525	147.600	141.525

IES INDOOR REPORT
PHOTOMETRIC FILENAME : BPEN-PRO-LED35-SO.IES

CANDELA TABULATION - (Cont.)

135.0	147.825	146.700	139.050	145.125	134.550	128.250	137.925	143.550	151.425	143.550
137.5	150.525	144.675	136.800	139.500	130.275	126.450	132.075	143.775	147.600	143.775
140.0	156.825	144.900	133.425	140.850	128.700	122.175	140.850	142.875	141.750	142.875
142.5	150.975	136.350	127.575	139.050	121.950	117.000	144.225	135.900	135.675	135.900
145.0	143.325	126.900	121.500	133.200	114.075	110.250	136.575	128.700	128.700	128.700
147.5	129.600	118.350	112.950	124.425	105.300	103.725	126.900	122.175	118.125	122.175
150.0	117.225	108.900	106.650	112.050	98.775	98.775	118.125	110.925	110.250	110.925
152.5	108.450	98.775	98.775	104.400	88.650	93.375	106.200	104.625	101.700	104.625
155.0	99.900	90.900	90.900	90.450	83.250	87.300	96.075	93.825	94.950	93.825
157.5	88.425	81.000	80.775	84.600	73.575	76.725	87.300	85.050	87.075	85.050
160.0	78.525	69.525	74.250	74.925	65.025	70.200	77.400	74.025	73.575	74.025
162.5	66.375	62.325	64.575	63.225	57.600	62.325	66.825	67.500	64.350	67.500
165.0	58.950	53.100	56.025	54.000	52.200	54.675	57.825	56.475	55.350	56.475
167.5	48.375	44.550	44.775	46.800	43.425	46.350	46.800	48.600	47.250	48.600
170.0	38.250	40.950	38.025	38.925	36.675	38.925	39.150	41.625	37.800	41.625
172.5	31.725	28.350	31.275	30.600	28.575	32.400	29.925	30.375	33.300	30.375
175.0	24.975	24.525	23.400	25.425	22.050	25.425	25.425	24.300	27.000	24.300
177.5	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
180.0	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

Vert. Angles **Horizontal Angles**

	<u>225.0</u>	<u>247.5</u>	<u>270.0</u>	<u>292.5</u>	<u>315.0</u>	<u>337.5</u>	<u>360.0</u>
0.0	3113.325	3113.325	3113.325	3113.325	3113.325	3113.325	3113.325
2.5	3112.200	3105.225	3104.100	3102.975	3102.075	3095.775	3098.250
5.0	3096.225	3098.025	3105.225	3107.475	3097.800	3091.725	3089.250
7.5	3087.675	3079.350	3074.400	3078.900	3084.075	3067.200	3090.375
10.0	3059.550	3044.250	3053.250	3047.625	3047.400	3044.475	3057.975
12.5	3020.400	3006.000	3021.525	3013.650	3011.175	3017.700	3020.625
15.0	2980.350	2963.025	2976.750	2973.825	2967.075	2971.800	2976.300
17.5	2941.875	2923.650	2921.175	2929.050	2912.850	2916.900	2924.325
20.0	2890.125	2864.700	2862.900	2867.400	2860.425	2856.600	2863.350
22.5	2823.525	2790.450	2805.975	2812.050	2796.525	2792.475	2795.850
25.0	2744.775	2716.425	2748.375	2721.600	2705.850	2722.950	2727.225
27.5	2668.500	2642.850	2648.925	2645.100	2628.900	2628.225	2645.325
30.0	2588.400	2565.675	2566.575	2567.475	2545.200	2546.100	2570.625
32.5	2517.075	2485.800	2483.775	2485.575	2459.250	2459.925	2486.250
35.0	2428.425	2417.400	2404.125	2411.775	2380.950	2375.775	2403.675
37.5	2346.075	2330.325	2316.825	2320.425	2290.725	2291.175	2315.475
40.0	2265.075	2240.325	2242.350	2234.475	2208.375	2205.900	2229.975
42.5	2184.075	2157.300	2151.225	2154.375	2124.000	2118.375	2145.150
45.0	2103.075	2078.325	2070.000	2070.900	2038.050	2034.675	2060.775
47.5	2021.850	1997.100	1988.775	1989.225	1957.950	1949.400	1976.850
50.0	1942.425	1917.900	1908.900	1906.425	1871.550	1865.250	1893.825
52.5	1861.200	1836.675	1825.425	1822.500	1790.325	1781.550	1808.100
55.0	1776.375	1757.475	1741.275	1740.825	1706.175	1696.050	1722.825
57.5	1691.775	1672.425	1658.700	1656.900	1617.975	1611.000	1636.425
60.0	1607.850	1583.775	1570.275	1567.125	1532.025	1520.775	1542.150
62.5	1516.500	1494.000	1479.825	1476.900	1440.675	1428.750	1451.925
65.0	1424.925	1400.625	1388.475	1387.800	1347.300	1338.525	1362.150
67.5	1332.450	1307.250	1297.800	1295.100	1257.300	1244.250	1269.900
70.0	1237.050	1210.050	1206.225	1201.050	1163.925	1150.200	1175.175
72.5	1141.875	1113.975	1109.025	1109.250	1067.625	1054.125	1075.950
75.0	1043.325	1017.000	1010.700	1014.750	972.450	960.075	983.700
77.5	949.275	918.450	915.075	920.025	877.725	866.250	894.150
80.0	856.125	822.825	819.675	830.025	785.925	774.000	796.050

IES INDOOR REPORT
PHOTOMETRIC FILENAME : BPEN-PRO-LED35-SO.IES

CANDELA TABULATION - (Cont.)

82.5	762.525	727.650	730.125	736.425	694.125	685.125	708.525
85.0	672.075	632.700	636.975	647.100	606.600	596.925	620.325
87.5	523.575	494.325	513.450	527.625	486.450	481.950	522.225
90.0	343.800	313.425	331.650	347.625	305.775	301.950	331.875
92.5	319.950	291.825	306.450	323.100	280.800	278.325	303.300
95.0	375.525	329.400	333.900	355.725	322.875	323.550	346.950
97.5	355.500	334.575	362.475	364.275	328.950	324.000	355.500
100.0	324.675	319.050	341.100	344.700	295.425	282.375	294.975
102.5	307.575	303.075	318.150	322.875	279.225	259.875	264.600
105.0	298.350	287.775	304.200	308.925	265.950	249.975	258.525
107.5	290.250	281.025	290.925	297.000	258.750	241.425	256.950
110.0	277.650	271.350	272.700	282.825	248.625	243.225	255.150
112.5	259.425	253.350	251.775	261.450	232.425	231.075	244.125
115.0	229.500	229.500	232.425	235.800	220.725	218.925	224.100
117.5	205.875	206.550	214.875	217.575	203.400	206.100	216.450
120.0	193.500	188.550	199.125	204.300	189.225	197.550	209.700
122.5	183.375	170.100	182.250	195.075	173.700	185.175	193.050
125.0	171.900	155.925	168.525	182.025	165.600	177.525	184.050
127.5	162.000	143.775	155.925	174.150	155.925	165.825	176.175
130.0	153.225	135.000	146.025	165.825	147.600	156.150	167.175
132.5	143.550	129.600	137.925	152.550	144.675	150.750	158.625
135.0	137.925	128.250	134.550	145.125	139.050	146.700	147.825
137.5	132.075	126.450	130.275	139.500	136.800	144.675	150.525
140.0	140.850	122.175	128.700	140.850	133.425	144.900	156.825
142.5	144.225	117.000	121.950	139.050	127.575	136.350	150.975
145.0	136.575	110.250	114.075	133.200	121.500	126.900	143.325
147.5	126.900	103.725	105.300	124.425	112.950	118.350	129.600
150.0	118.125	98.775	98.775	112.050	106.650	108.900	117.225
152.5	106.200	93.375	88.650	104.400	98.775	98.775	108.450
155.0	96.075	87.300	83.250	90.450	90.900	90.900	99.900
157.5	87.300	76.725	73.575	84.600	80.775	81.000	88.425
160.0	77.400	70.200	65.025	74.925	74.250	69.525	78.525
162.5	66.825	62.325	57.600	63.225	64.575	62.325	66.375
165.0	57.825	54.675	52.200	54.000	56.025	53.100	58.950
167.5	46.800	46.350	43.425	46.800	44.775	44.550	48.375
170.0	39.150	38.925	36.675	38.925	38.025	40.950	38.250
172.5	29.925	32.400	28.575	30.600	31.275	28.350	31.725
175.0	25.425	25.425	22.050	25.425	23.400	24.525	24.975
177.5	0.000	0.000	0.000	0.000	0.000	0.000	0.000
180.0	0.000	0.000	0.000	0.000	0.000	0.000	0.000

IES INDOOR REPORT
PHOTOMETRIC FILENAME : BPEN-PRO-LED35-SO.IES

ZONAL LUMEN SUMMARY

Zone	Lumens	%Lamp	%Fixt
0-20	1133.38	N.A.	9.90
0-30	2390.49	N.A.	20.90
0-40	3897.38	N.A.	34.00
0-60	7061.34	N.A.	61.60
0-80	9506.54	N.A.	82.90
0-90	10173.44	N.A.	88.80
10-90	9879.14	N.A.	86.20
20-40	2764.00	N.A.	24.10
20-50	4366.58	N.A.	38.10
40-70	4540.7	N.A.	39.60
60-80	2445.21	N.A.	21.30
70-80	1068.47	N.A.	9.30
80-90	666.90	N.A.	5.80
90-110	658.44	N.A.	5.70
90-120	884.21	N.A.	7.70
90-130	1038.52	N.A.	9.10
90-150	1227.33	N.A.	10.70
90-180	1288.56	N.A.	11.20
110-180	630.12	N.A.	5.50
0-180	11462.00	N.A.	100.00

Total Luminaire Efficiency = N.A. %

ZONAL LUMEN SUMMARY

Zone	Lumens
0-10	294.30
10-20	839.08
20-30	1257.11
30-40	1506.89
40-50	1602.57
50-60	1561.38
60-70	1376.74
70-80	1068.47
80-90	666.90
90-100	359.16
100-110	299.28
110-120	225.77
120-130	154.30
130-140	109.99
140-150	78.81
150-160	42.60
160-170	16.15
170-180	2.49

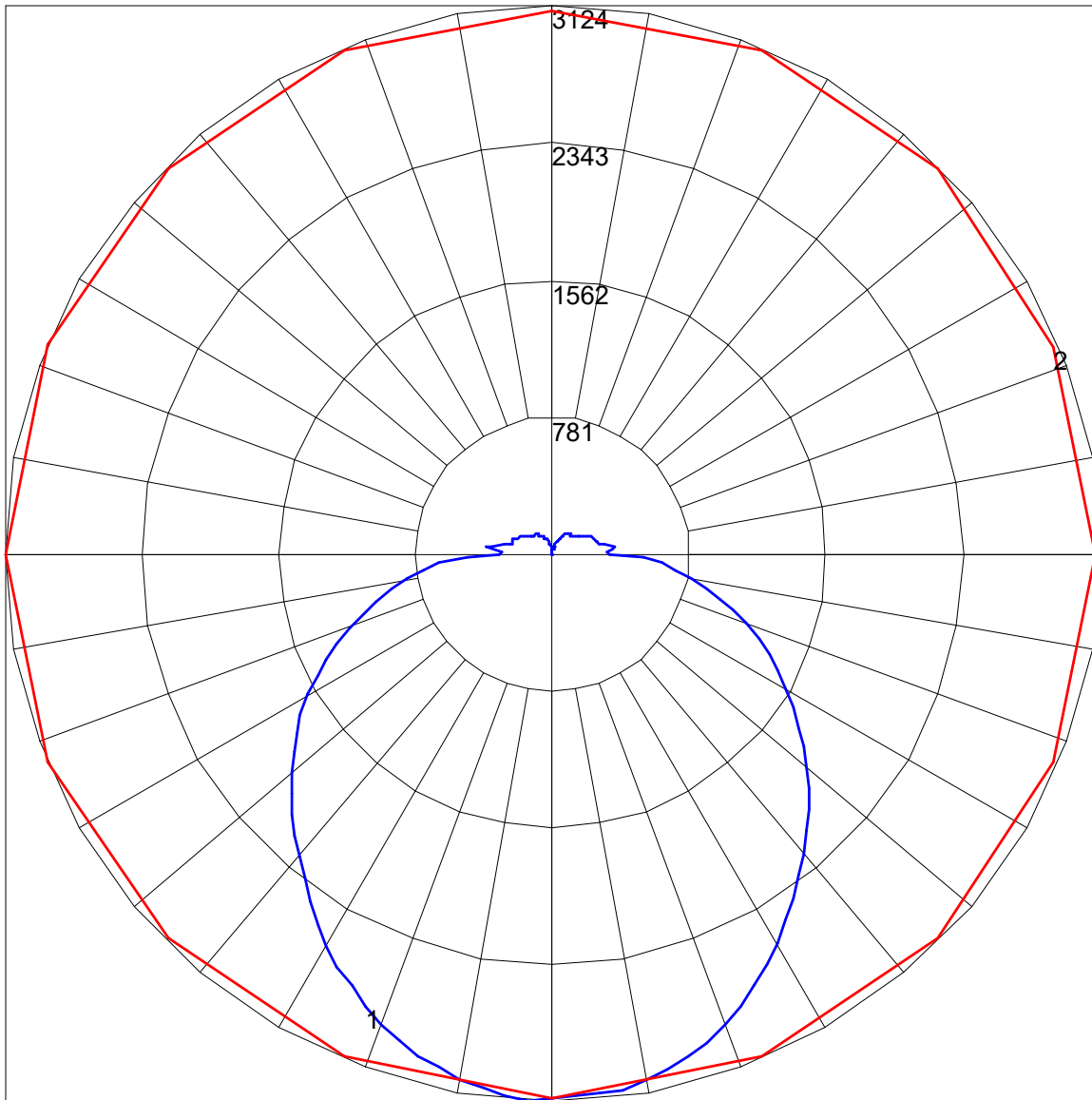
IES INDOOR REPORT
PHOTOMETRIC FILENAME : BPEN-PRO-LED35-SO.IES

COEFFICIENTS OF UTILIZATION - ZONAL CAVITY METHOD

Effective Floor Cavity Reflectance 0.20

RC	80				70				50			30			10			0
RW	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10	0
0	116	116	116	116	112	112	112	112	105	105	105	98	98	98	92	92	92	89
1	104	98	93	89	100	95	90	86	88	85	81	83	80	77	77	75	73	70
2	94	84	77	70	90	82	75	69	76	70	65	71	66	62	66	63	59	56
3	85	73	65	58	81	71	63	56	66	60	54	62	56	52	58	53	49	46
4	77	65	55	48	74	63	54	47	59	51	45	55	49	44	51	46	42	39
5	71	58	48	41	68	56	47	40	52	45	39	49	43	37	46	41	36	34
6	65	52	42	36	63	50	41	35	47	40	34	44	38	33	42	36	32	29
7	61	47	38	31	58	45	37	31	43	35	30	40	34	29	38	32	28	26
8	56	43	34	28	54	41	33	27	39	32	27	37	30	26	35	29	25	23
9	53	39	31	25	51	38	30	25	36	29	24	34	28	23	32	27	22	20
10	49	36	28	23	47	35	27	22	33	26	22	32	25	21	30	24	20	19

POLAR GRAPH



Maximum Candela = 3124.125 Located At Horizontal Angle = 180, Vertical Angle = 2.5
1 - Vertical Plane Through Horizontal Angles (180 - 0) (Through Max. Cd.)
2 - Horizontal Cone Through Vertical Angle (2.5) (Through Max. Cd.)