

Scaled data based on original data using
LM-79-2019 Approved Method: Electrical and Photometric Measurements of Solid-
State Lighting Products

Test Report Prepared for
Cooper Lighting Solutions

Brand: NEO-RAY

Report Number: P645090

Luminaire Tested: OMN4DIP-SR4F0-75D150U835-FLLOOB-1DUDD-WW

Issue Date: 2/16/2023



Test Information

Test Method: LM-79-2019
Report Number: P645090
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2203-563-26, G2-2206-689-19)
Test Lab: INNOVATION CENTER
Issue Date: 2/16/2023
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: NEO-RAY
Catalog Number: OMN4DIP-SR4F0-75D150U835-FLLOOB-1DUDD-WW
Description: NEO-RAY CIRQUE SUSPENDED LED LUMINAIRE
DOWNLIGHT - FLAT FROSTED LENS - 750 LUMENS PER FOOT
UPLIGHT - BATWING OPTIC - 1500 LUMENS PER FOOT
Light Source: 3500K CCT, 80 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

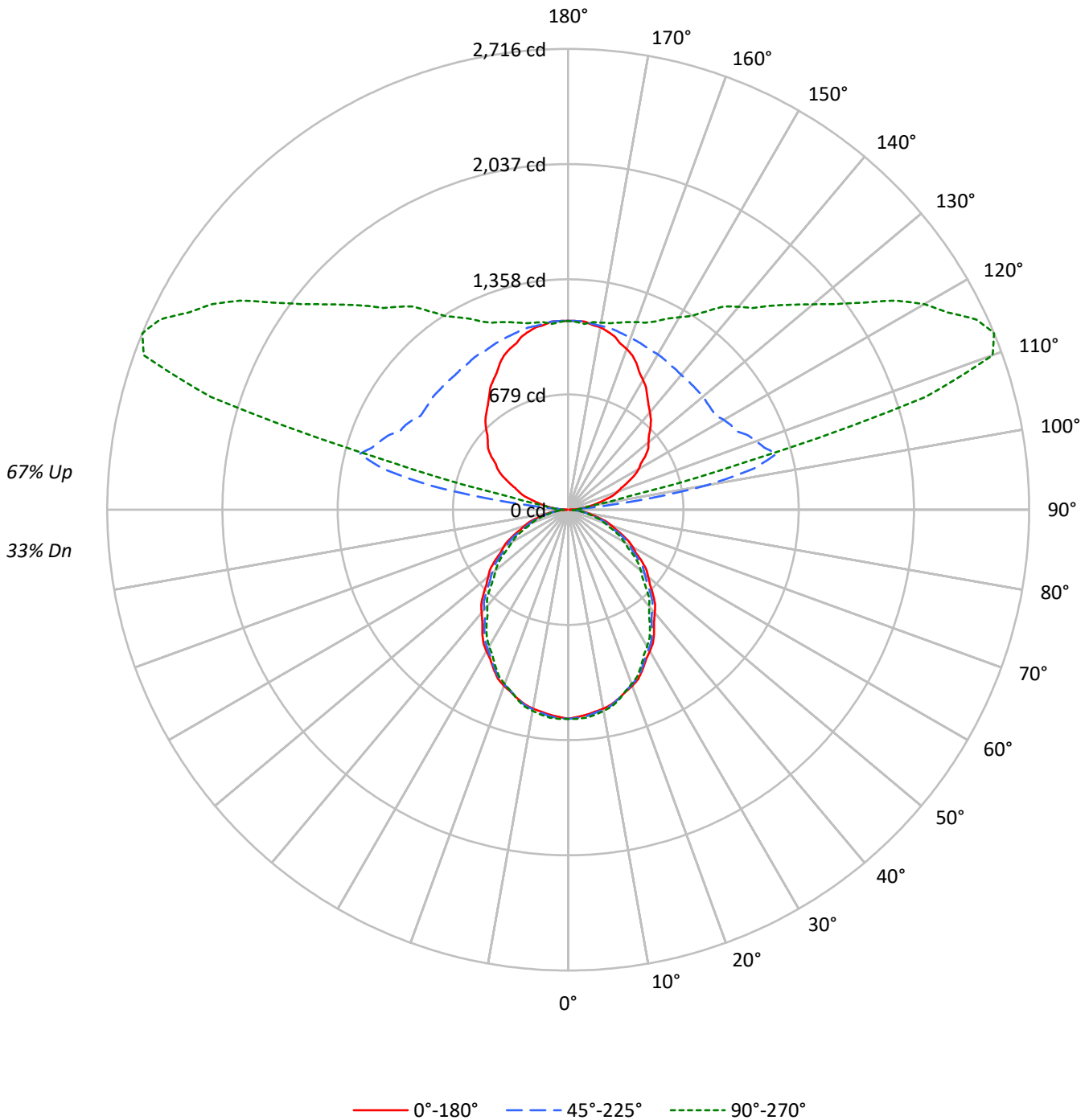
Lumens per Lamp: N/A
Luminaire Lumens: 8988.1 lumens
Efficiency: N/A
Efficacy: 127.7 lumens/watt
Spacing Criteria (0/90/45): 1.17 / 1.13 / 1.26
Luminous Opening: Rectangular (W 0.17' x L: 4' x H: 0')
CIE Type: Semi-Indirect

Input Watts (W): 70.4
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT

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Luminous Intensity Polar Plot





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COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:

RF	20				20				20				20				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
RCR																				
0	103	103	103	103	93	93	93	93	74	74	74		57	57	57		41	41	41	33
1	94	90	86	83	85	81	78	75	65	63	61		50	48	47		36	35	34	28
2	86	79	73	68	77	71	66	62	57	53	50		44	42	39		32	30	29	24
3	78	69	62	56	70	62	56	52	50	46	42		39	36	33		28	26	25	20
4	71	61	53	48	64	55	49	44	45	40	36		35	31	29		25	23	21	17
5	66	54	46	41	59	49	43	37	40	35	31		31	28	25		23	21	19	15
6	60	49	41	35	54	44	37	32	36	31	27		28	24	22		21	18	16	13
7	56	44	36	31	50	40	33	28	32	27	24		25	22	19		19	16	15	12
8	52	40	32	27	46	36	30	25	30	25	21		23	20	17		17	15	13	11
9	48	36	29	24	43	33	27	22	27	22	19		21	18	15		16	14	12	10
10	45	33	26	21	40	30	24	20	25	20	17		20	16	14		15	12	11	9

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	19900	19900	19900
5°	19676	19812	19948
10°	19520	19602	19739
15°	19256	19256	19368
20°	18986	18844	18785
25°	18492	18342	18104
30°	17944	17695	17350
35°	17385	16955	16559
40°	16716	16223	15656
45°	16157	15545	14780
50°	15458	14785	14026
55°	14869	14114	13264
60°	14186	13430	12290
65°	13452	12493	11530
70°	12746	11556	10768
75°	11928	10568	10044
80°	10916	9670	9196
85°	10244	9003	8392

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 16157 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	115.9	1.3
10°-20°	325.3	3.6
20°-30°	473.1	5.3
30°-40°	538.1	6.0
40°-50°	524.7	5.8
50°-60°	447.9	5.0
60°-70°	325.5	3.6
70°-80°	184.1	2.0
80°-90°	59.2	0.7
90°-100°	144.0	1.6
100°-110°	979.2	10.9
110°-120°	1326.4	14.8
120°-130°	1079.0	12.0
130°-140°	866.8	9.6
140°-150°	683.3	7.6
150°-160°	499.6	5.6
160°-170°	310.3	3.5
170°-180°	105.8	1.2
0°-30°	914.3	10.2
0°-40°	1452.4	16.2
0°-60°	2425.0	27.0
0°-90°	2993.7	33.3
90°-120°	2449.6	27.3
90°-150°	5078.7	56.5
90°-180°	5994.0	66.7
0°-180°	8988.1	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1232	1232	1232	1232	1232	
5°	1214	1232	1222	1221	1231	115
15°	1152	1167	1152	1150	1159	325
25°	1038	1048	1030	1011	1016	478
35°	882	885	860	840	840	551
45°	708	704	681	657	647	545
55°	528	527	501	478	471	471
65°	352	349	327	307	302	350
75°	191	185	169	163	161	203
85°	55	49	49	47	45	59
90°	7	15	24	29	29	9
95°	69	111	61	68	80	73
105°	225	338	1270	1620	1071	238
115°	390	471	1094	2270	2653	388
125°	556	632	1031	1800	2128	494
135°	686	761	1036	1482	1701	528
145°	812	880	1043	1291	1428	510
155°	952	986	1064	1170	1225	437
165°	1057	1071	1092	1121	1141	297
175°	1113	1120	1113	1106	1099	105
180°	1113	1113	1113	1113	1113	

TEST NUMBER: P645090

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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1232.5	1232.5	1232.5	1232.5	1232.5
2.5°	1221.8	1237.5	1228.5	1228.6	1233.8
5°	1214.0	1232.1	1222.4	1221.0	1230.8
7.5°	1201.3	1219.0	1207.7	1205.9	1218.7
10°	1190.6	1207.0	1195.6	1192.5	1204.0
12.5°	1175.8	1192.2	1180.8	1176.4	1187.9
15°	1152.0	1166.7	1152.0	1150.5	1158.7
17.5°	1125.2	1138.0	1120.8	1115.2	1121.5
20°	1105.0	1116.5	1096.7	1088.4	1093.3
22.5°	1079.6	1091.0	1069.8	1057.6	1063.8
25°	1038.0	1047.8	1029.6	1011.3	1016.2
27.5°	993.4	1000.9	982.6	963.9	965.5
30°	962.5	967.4	949.1	929.0	930.6
32.5°	930.3	933.9	914.2	892.8	893.1
35°	882.0	885.3	860.2	840.1	840.1
37.5°	830.7	832.7	805.9	784.0	781.7
40°	793.1	796.4	769.7	747.8	742.8
42.5°	758.3	758.9	734.8	712.9	706.6
45°	707.6	704.3	680.8	657.1	647.3
47.5°	653.0	653.0	626.1	602.4	593.3
50°	615.4	615.4	588.6	564.9	558.4
52.5°	580.5	579.2	553.7	530.0	520.8
55°	528.2	526.6	501.4	477.8	471.2
57.5°	472.9	472.9	449.4	424.1	416.9
60°	439.3	439.3	415.9	390.5	380.6
62.5°	403.1	401.8	378.3	355.7	349.8
65°	352.1	348.9	327.0	306.8	301.8
67.5°	303.5	300.2	277.0	260.8	257.6
70°	270.0	266.7	244.8	231.3	228.1
72.5°	237.8	233.2	214.0	203.2	199.9
75°	191.2	184.6	169.4	162.6	161.0
77.5°	146.9	135.7	129.5	124.7	123.1
80°	117.4	107.5	104.0	100.6	98.9
82.5°	91.9	82.1	81.2	79.1	77.5
85°	55.3	48.8	48.6	46.9	45.3
87.5°	24.1	21.9	23.6	24.7	24.7
90°	6.7	15.2	24.1	29.4	29.4
92.5°	28.9	32.1	38.2	50.5	54.7
95°	69.4	110.8	61.0	68.3	80.4
97.5°	111.1	206.2	416.3	124.4	106.7
100°	144.7	256.2	829.4	244.8	162.7
102.5°	177.0	293.9	1120.7	643.3	351.8
105°	225.4	338.5	1270.5	1620.3	1071.1
107.5°	275.5	360.1	1213.1	2357.5	2206.6
110°	307.7	388.2	1179.5	2477.1	2660.2



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	341.3	421.8	1145.9	2407.1	2716.2
115°	390.1	470.6	1093.8	2269.9	2653.2
117.5°	441.9	521.0	1081.2	2123.1	2517.4
120°	481.1	554.7	1058.8	2011.5	2422.2
122.5°	507.7	588.2	1030.8	1915.6	2293.4
125°	556.4	631.7	1030.8	1799.6	2128.2
127.5°	595.3	673.3	1032.2	1665.1	1989.6
130°	617.7	699.9	1037.8	1575.1	1883.2
132.5°	644.4	726.5	1036.4	1534.7	1788.0
135°	686.1	761.4	1036.1	1482.1	1701.2
137.5°	721.1	801.8	1036.1	1424.0	1611.5
140°	749.1	824.4	1036.1	1390.0	1561.1
142.5°	777.1	846.9	1041.7	1350.6	1510.7
145°	812.1	880.5	1043.1	1291.2	1428.1
147.5°	854.1	914.3	1051.5	1248.5	1353.9
150°	882.1	936.8	1057.1	1220.1	1309.1
152.5°	910.1	959.4	1057.1	1197.4	1269.9
155°	952.1	986.3	1064.1	1170.3	1225.1
157.5°	985.7	1018.5	1072.5	1153.2	1192.9
160°	1008.1	1035.5	1078.1	1141.9	1176.1
162.5°	1024.9	1052.3	1083.7	1136.0	1159.3
165°	1057.1	1070.8	1092.1	1120.6	1141.1
167.5°	1075.3	1087.6	1099.1	1113.4	1125.7
170°	1092.1	1098.9	1099.1	1113.3	1120.1
172.5°	1097.7	1110.0	1104.7	1107.7	1114.5
175°	1113.1	1119.9	1113.1	1105.9	1099.1
177.5°	1113.1	1118.6	1113.1	1113.0	1107.5
180°	1113.1	1113.1	1113.1	1113.1	1113.1

(END OF REPORT)