

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: P645088

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

Issue Date: 2/16/2023



Test Information

Test Method: LM-79-2019
Report Number: P645088
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2203-563-26, G2-2206-689-20)
Test Lab: INNOVATION CENTER
Issue Date: 2/16/2023
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: NEO-RAY
Catalog Number: OMN4DIP-SR4F0-75D150U835-CLBOOB-1DUDD-WW
Description: NEO-RAY CIRQUE SUSPENDED LED LUMINAIRE
DOWNLIGHT - BATWING LENS - 750 LUMENS PER FOOT
UPLIGHT - BATWING OPTIC - 1500 LUMENS PER FOOT
Light Source: 3500K CCT, 80 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

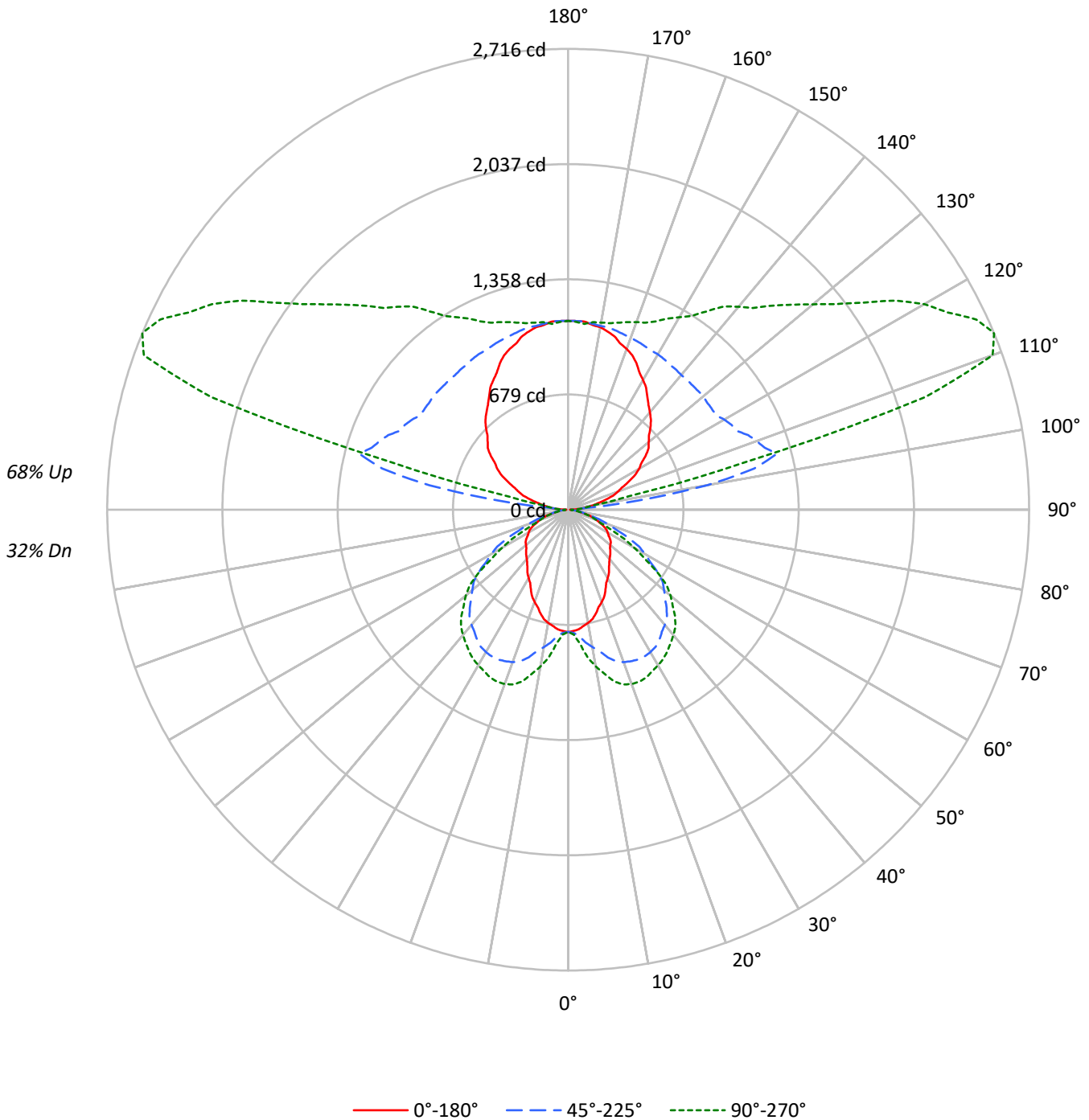
Lumens per Lamp: N/A
Luminaire Lumens: 8770.6 lumens
Efficiency: N/A
Efficacy: 124.6 lumens/watt
Spacing Criteria (0/90/45): 0.99 / 1.87 / 1.75
Luminous Opening: Rectangular (W 0.17' x L: 4' x H: 0')
CIE Type: Semi-Indirect

Input Watts (W): 70.4
Input Voltage (V): 120
Input Current (A_{in}): 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	50	30	10	0	
RCR																						
0	103	103	103	103	92	92	92	92	73	73	73	55	55	55	39	39	39	39	39	39	32	
1	94	90	86	82	84	81	78	75	64	62	60	49	47	46	35	34	33	35	34	33	27	
2	85	78	72	67	76	70	65	61	56	53	50	43	41	39	31	29	28	31	29	28	22	
3	78	69	61	56	70	62	56	51	49	45	42	38	35	32	27	25	24	27	25	24	19	
4	71	60	53	47	64	55	48	43	44	39	35	33	30	28	24	22	20	24	22	20	16	
5	65	54	46	40	58	49	42	37	39	34	30	30	26	24	21	19	17	21	19	17	14	
6	60	48	40	34	53	43	37	32	35	30	26	27	23	21	19	17	15	19	17	15	12	
7	55	43	35	30	49	39	32	27	31	26	23	24	21	18	18	15	13	18	15	13	11	
8	51	39	31	26	46	35	29	24	28	24	20	22	19	16	16	14	12	16	14	12	9	
9	47	35	28	23	42	32	26	21	26	21	18	20	17	14	15	12	11	15	12	11	8	
10	44	32	25	20	40	29	23	19	24	19	16	19	15	13	14	11	10	14	11	10	8	

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	11641	11641	11641
5°	11468	12122	12828
10°	11106	13472	15369
15°	10567	15052	17518
20°	9940	16423	18785
25°	9260	17355	19417
30°	8660	18069	19727
35°	8263	18443	20061
40°	7988	18661	20322
45°	8003	18724	20331
50°	8128	18532	19753
55°	8495	18173	17937
60°	8664	16895	14567
65°	8776	14800	10697
70°	8389	11637	8313
75°	7530	8684	7006
80°	6397	6862	5616
85°	6206	5595	4668

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°
 Vertical Angle: 45°
 Luminance: 20331 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	73.9	0.8
10°-20°	245.8	2.8
20°-30°	408.3	4.7
30°-40°	515.0	5.9
40°-50°	550.6	6.3
50°-60°	485.9	5.5
60°-70°	311.9	3.6
70°-80°	138.3	1.6
80°-90°	38.4	0.4
90°-100°	146.3	1.7
100°-110°	981.2	11.2
110°-120°	1328.5	15.1
120°-130°	1080.5	12.3
130°-140°	867.0	9.9
140°-150°	683.3	7.8
150°-160°	499.6	5.7
160°-170°	310.3	3.5
170°-180°	105.8	1.2
0°-30°	728.0	8.3
0°-40°	1243.0	14.2
0°-60°	2279.5	26.0
0°-90°	2768.0	31.6
90°-120°	2456.1	28.0
90°-150°	5086.8	58.0
90°-180°	6003.0	68.4
0°-180°	8770.6	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	721	721	721	721	721	
5°	708	729	748	773	792	66
15°	632	729	900	1009	1048	177
25°	520	705	974	1065	1090	239
35°	419	644	936	996	1018	263
45°	350	550	820	871	890	271
55°	302	433	646	649	637	268
65°	230	290	387	314	280	225
75°	121	134	139	119	112	129
85°	34	29	30	27	25	35
90°	12	19	24	31	28	10
95°	74	116	64	68	80	76
105°	229	344	1272	1620	1071	242
115°	393	474	1097	2272	2653	391
125°	558	633	1034	1801	2128	496
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	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	721.0	721.0	721.0	721.0	721.0
2.5°	715.7	726.2	726.4	730.6	735.8
5°	707.6	728.9	747.9	773.4	791.5
7.5°	690.9	728.9	789.5	848.8	878.3
10°	677.4	729.9	821.7	901.3	937.4
12.5°	660.0	729.5	853.8	949.7	991.0
15°	632.2	728.9	900.5	1008.7	1048.0
17.5°	600.0	725.9	937.0	1045.5	1079.9
20°	578.5	722.8	955.8	1058.9	1093.3
22.5°	554.4	715.7	966.5	1065.5	1097.3
25°	519.8	705.1	974.2	1065.4	1089.9
27.5°	485.9	689.9	974.6	1051.9	1072.8
30°	464.5	677.6	969.2	1038.4	1058.1
32.5°	445.7	664.1	958.5	1022.3	1043.3
35°	419.2	643.8	935.7	996.5	1017.8
37.5°	396.4	620.7	906.8	966.1	991.0
40°	379.0	601.9	885.4	944.5	964.2
42.5°	365.6	582.0	859.9	917.6	934.7
45°	350.5	550.5	820.0	870.7	890.4
47.5°	334.4	518.0	774.0	821.9	834.7
50°	323.6	494.1	737.8	781.5	786.4
52.5°	316.9	469.1	702.9	730.5	731.4
55°	301.8	433.0	645.6	648.7	637.2
57.5°	281.7	390.9	572.8	556.4	528.9
60°	268.3	361.8	523.2	490.4	451.1
62.5°	254.9	333.9	470.9	417.8	371.9
65°	229.7	290.4	387.4	314.5	280.0
67.5°	200.6	242.5	304.2	235.2	212.3
70°	177.7	210.5	246.5	192.5	176.1
72.5°	156.3	178.6	199.5	159.1	150.6
75°	120.7	133.8	139.2	118.9	112.3
77.5°	88.9	89.5	96.6	83.8	80.5
80°	68.8	65.5	73.8	63.6	60.4
82.5°	52.7	48.1	53.7	46.2	44.3
85°	33.5	28.6	30.2	26.8	25.2
87.5°	19.8	17.2	18.2	18.2	16.3
90°	11.7	18.6	24.1	31.0	27.7
92.5°	32.6	35.5	39.5	50.8	53.0
95°	74.5	115.8	64.4	68.3	80.4
97.5°	115.8	210.9	418.0	124.8	106.7
100°	148.1	259.6	831.1	246.5	162.7
102.5°	180.4	298.6	1122.3	643.6	351.8
105°	228.8	343.5	1272.1	1620.3	1071.1
107.5°	278.8	363.5	1214.7	2357.5	2206.6
110°	311.1	391.6	1181.1	2477.1	2660.2



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	344.7	425.2	1147.5	2407.1	2716.2
115°	393.4	473.9	1097.1	2271.6	2653.2
117.5°	444.9	524.3	1084.5	2124.8	2517.4
120°	482.7	558.0	1062.1	2013.2	2422.2
122.5°	510.8	590.2	1032.8	1917.2	2293.4
125°	558.1	633.4	1034.1	1801.3	2128.2
127.5°	597.0	675.0	1033.8	1666.4	1989.6
130°	619.4	701.5	1039.4	1575.1	1883.2
132.5°	644.7	726.9	1036.8	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)