

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: P645032

Luminaire Tested: OMN4DIP-SR4F0-75D100U840-CLBOOB-1DUDD-WW

Issue Date: 2/16/2023



**Test Information**

Test Method: LM-79-2019  
Report Number: P645032  
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-SR4F0-75D100U840-CLBOOB-1DUDD-WW  
Description: NEO-RAY CIRQUE SUSPENDED LED LUMINAIRE  
DOWNLIGHT - BATWING LENS - 750 LUMENS PER FOOT  
UPLIGHT - BATWING OPTIC - 1000 LUMENS PER FOOT  
Light Source: 4000K CCT, 80 CRI LEDS  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

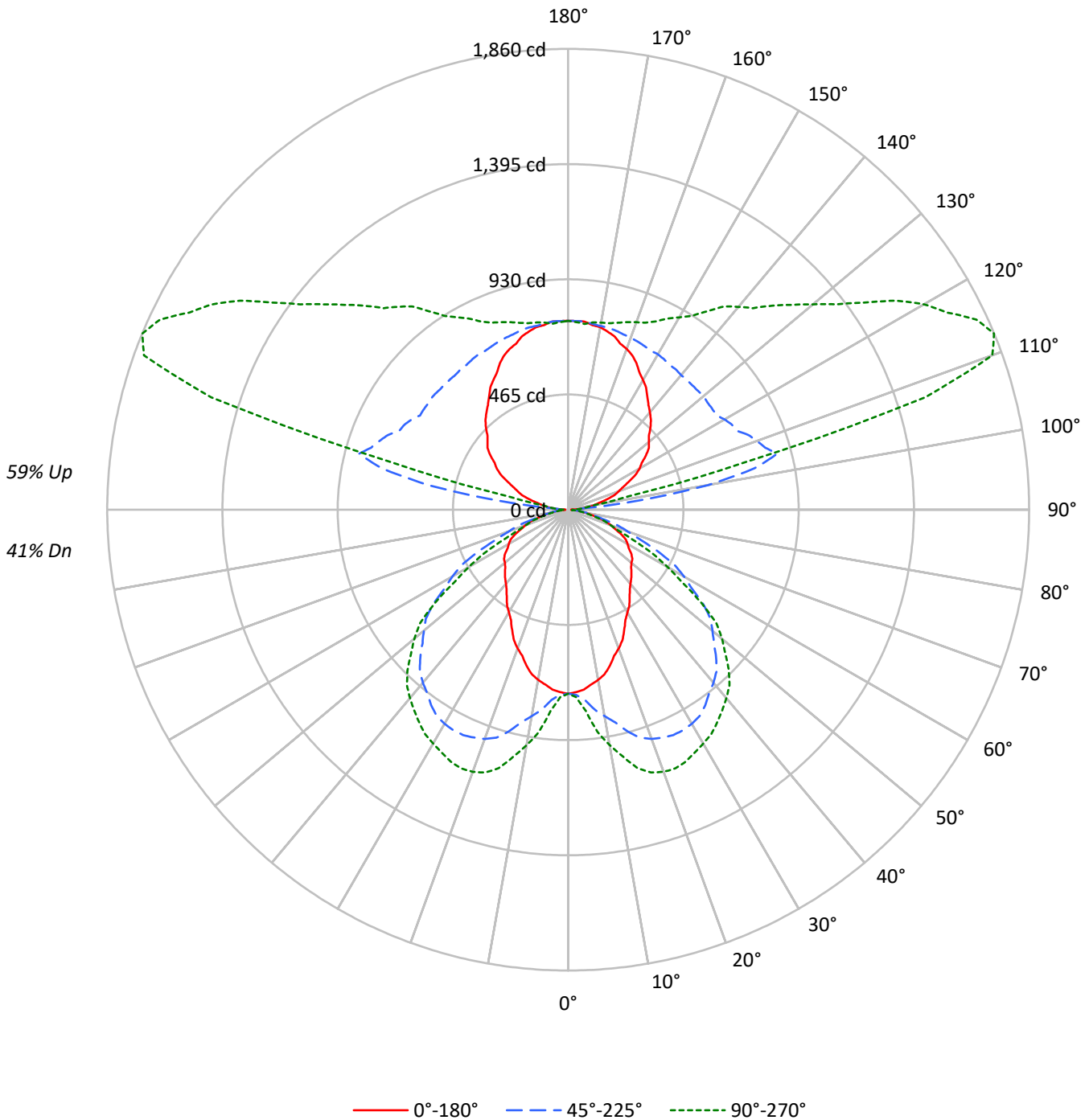
Lumens per Lamp: N/A  
Luminaire Lumens: 6967.2 lumens  
Efficiency: N/A  
Efficacy: 137.1 lumens/watt  
Spacing Criteria (0/90/45): 0.99 / 1.87 / 1.75  
Luminous Opening: Rectangular (W 0.17' x L: 4' x H: 0')  
CIE Type: General Diffuse

Input Watts (W): 50.8  
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	105	105	105	105	96	96	96	96	78	78	78	62	62	62	48	48	48	41
1	96	92	88	84	87	84	80	78	69	66	64	55	53	52	42	41	41	35
2	87	80	74	69	79	73	68	64	60	56	53	48	46	43	37	36	34	29
3	79	70	63	57	72	64	58	53	53	48	45	43	39	37	33	31	29	24
4	73	62	54	48	66	57	50	45	47	42	38	38	34	31	29	27	25	21
5	66	55	47	41	60	50	43	38	42	36	32	34	30	27	26	24	21	18
6	61	49	41	35	55	45	38	33	37	32	28	30	26	23	24	21	19	16
7	56	44	36	31	51	41	34	29	34	28	25	27	23	20	21	19	16	14
8	52	40	32	27	47	37	30	25	31	25	22	25	21	18	20	17	15	12
9	48	36	29	24	44	33	27	22	28	23	19	23	19	16	18	15	13	11
10	45	33	26	21	41	31	24	20	26	21	17	21	17	14	17	14	12	10

**AVERAGE LUMINANCE (cd/sqm):**

	0°	45°	90°
0°	11988	11988	11988
5°	11810	12483	13211
10°	11437	13872	15826
15°	10882	15500	18041
20°	10237	16912	19345
25°	9536	17874	19996
30°	8917	18608	20314
35°	8509	18993	20660
40°	8226	19218	20927
45°	8241	19281	20936
50°	8372	19085	20343
55°	8749	18714	18472
60°	8922	17399	14999
65°	9039	15240	11018
70°	8639	11981	8559
75°	7754	8939	7218
80°	6583	7066	5783
85°	6391	5761	4798

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 90°  
 Vertical Angle: 45°  
 Luminance: 20936 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	76.1	1.1
10°-20°	253.1	3.6
20°-30°	420.4	6.0
30°-40°	530.4	7.6
40°-50°	567.0	8.1
50°-60°	500.4	7.2
60°-70°	321.2	4.6
70°-80°	142.4	2.0
80°-90°	38.6	0.6
90°-100°	103.4	1.5
100°-110°	673.9	9.7
110°-120°	911.1	13.1
120°-130°	740.7	10.6
130°-140°	593.7	8.5
140°-150°	467.8	6.7
150°-160°	342.0	4.9
160°-170°	212.4	3.0
170°-180°	72.4	1.0
0°-30°	749.7	10.8
0°-40°	1280.0	18.4
0°-60°	2347.4	33.7
0°-90°	2849.7	40.9
90°-120°	1688.4	24.2
90°-150°	3490.6	50.1
90°-180°	4117.0	59.1
0°-180°	6967.2	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	742	742	742	742	742	
5°	729	751	770	796	815	68
15°	651	751	927	1039	1079	182
25°	535	726	1003	1097	1122	246
35°	432	663	964	1026	1048	271
45°	361	567	844	897	917	279
55°	311	446	665	668	656	276
65°	237	299	399	324	288	231
75°	124	138	143	122	116	133
85°	34	30	31	28	26	37
90°	12	17	20	25	21	10
95°	57	83	47	48	56	57
105°	161	239	873	1110	733	170
115°	272	327	753	1556	1816	271
125°	384	435	710	1234	1457	341
135°	470	521	709	1015	1165	362
145°	556	603	714	884	978	349
155°	652	675	728	801	839	299
165°	724	733	748	767	781	203
175°	762	767	762	757	752	72
180°	762	762	762	762	762	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	742.5	742.5	742.5	742.5	742.5
2.5°	737.0	747.8	748.1	752.3	757.7
5°	728.7	750.7	770.2	796.5	815.1
7.5°	711.5	750.6	813.0	874.1	904.5
10°	697.6	751.7	846.1	928.2	965.3
12.5°	679.7	751.3	879.3	978.0	1020.6
15°	651.0	750.6	927.3	1038.7	1079.3
17.5°	617.9	747.5	965.0	1076.6	1112.1
20°	595.8	744.3	984.3	1090.4	1125.9
22.5°	570.9	737.0	995.3	1097.3	1130.0
25°	535.3	726.1	1003.3	1097.1	1122.4
27.5°	500.4	710.5	1003.6	1083.2	1104.8
30°	478.3	697.8	998.1	1069.4	1089.6
32.5°	459.0	683.9	987.1	1052.8	1074.4
35°	431.7	663.0	963.6	1026.2	1048.2
37.5°	408.2	639.2	933.9	994.9	1020.6
40°	390.3	619.9	911.8	972.7	992.9
42.5°	376.4	599.3	885.5	945.0	962.5
45°	360.9	566.9	844.4	896.7	916.9
47.5°	344.3	533.4	797.1	846.4	859.6
50°	333.3	508.9	759.8	804.8	809.9
52.5°	326.4	483.1	723.9	752.2	753.2
55°	310.8	445.9	664.8	668.0	656.2
57.5°	290.1	402.6	589.9	573.0	544.6
60°	276.3	372.5	538.8	505.0	464.5
62.5°	262.5	343.9	484.9	430.3	383.0
65°	236.6	299.0	398.9	323.8	288.4
67.5°	206.5	249.8	313.2	242.3	218.6
70°	183.0	216.8	253.8	198.2	181.3
72.5°	160.9	183.9	205.5	163.8	155.1
75°	124.3	137.8	143.3	122.5	115.7
77.5°	91.5	92.2	99.5	86.3	82.9
80°	70.8	67.4	76.0	65.5	62.2
82.5°	54.2	49.5	55.3	47.6	45.6
85°	34.5	29.5	31.1	27.6	25.9
87.5°	20.4	17.3	17.8	17.3	15.3
90°	12.1	16.8	19.9	24.7	21.3
92.5°	27.7	28.4	30.1	37.3	37.7
95°	57.3	83.4	47.0	48.5	56.2
97.5°	85.0	148.3	288.4	86.6	73.6
100°	106.6	181.2	570.7	169.9	112.0
102.5°	128.2	207.9	770.1	441.3	240.9
105°	160.7	238.6	872.7	1109.9	733.3
107.5°	194.8	251.8	833.4	1614.5	1510.7
110°	216.5	271.0	810.4	1696.4	1821.3



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**CANDELA DISTRIBUTION (continued):**

	0°	22.5°	45°	67.5°	90°
112.5°	239.5	294.0	787.4	1648.5	1859.6
115°	272.2	326.8	752.9	1555.7	1816.5
117.5°	307.4	361.3	744.2	1455.2	1723.5
120°	332.8	384.4	728.9	1378.8	1658.3
122.5°	352.0	405.9	708.3	1313.1	1570.1
125°	383.8	435.4	709.7	1233.8	1457.0
127.5°	409.9	463.7	708.9	1141.3	1362.1
130°	425.2	481.5	712.8	1078.4	1289.3
132.5°	441.6	497.9	710.0	1050.7	1224.1
135°	469.7	521.2	709.3	1014.7	1164.6
137.5°	493.7	549.0	709.3	974.9	1103.3
140°	512.8	564.4	709.3	951.6	1068.8
142.5°	532.0	579.8	713.2	924.6	1034.3
145°	556.0	602.8	714.1	884.0	977.7
147.5°	584.7	626.0	719.9	854.8	926.9
150°	603.9	641.4	723.7	835.3	896.2
152.5°	623.1	656.8	723.7	819.7	869.4
155°	651.8	675.2	728.5	801.2	838.7
157.5°	674.8	697.3	734.3	789.5	816.7
160°	690.2	708.9	738.1	781.8	805.2
162.5°	701.7	720.4	741.9	777.7	793.7
165°	723.7	733.1	747.7	767.2	781.2
167.5°	736.2	744.6	752.5	762.2	770.7
170°	747.7	752.4	752.5	762.2	766.8
172.5°	751.5	759.9	756.3	758.3	763.0
175°	762.1	766.7	762.1	757.2	752.5
177.5°	762.1	765.8	762.1	762.0	758.2
180°	762.1	762.1	762.1	762.1	762.1

(END OF REPORT)