

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: P645062

Luminaire Tested: OMN4DIP-SR4F0-75D125U840-CLBOOB-1DUDD-WW

Issue Date: 2/16/2023



**Test Information**

Test Method: LM-79-2019  
Report Number: P645062  
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-SR4F0-75D125U840-CLBOOB-1DUDD-WW  
Description: NEO-RAY CIRQUE SUSPENDED LED LUMINAIRE  
DOWNLIGHT - BATWING LENS - 750 LUMENS PER FOOT  
UPLIGHT - BATWING OPTIC - 1250 LUMENS PER FOOT  
Light Source: 4000K CCT, 80 CRI LEDS  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

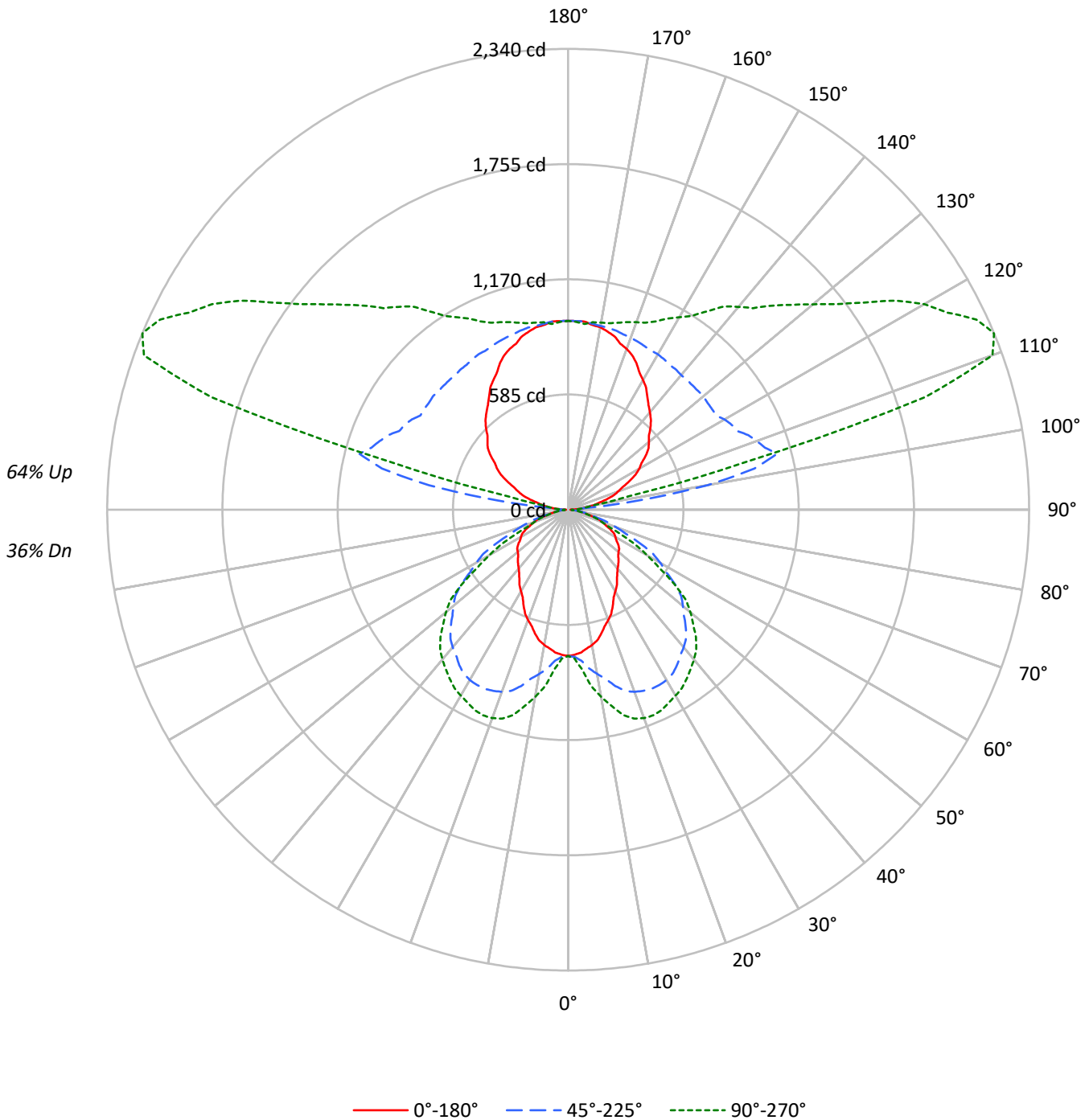
Lumens per Lamp: N/A  
Luminaire Lumens: 8024.6 lumens  
Efficiency: N/A  
Efficacy: 133.7 lumens/watt  
Spacing Criteria (0/90/45): 0.99 / 1.87 / 1.75  
Luminous Opening: Rectangular (W 0.17' x L: 4' x H: 0')  
CIE Type: Semi-Indirect

Input Watts (W): 60  
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	50	30	10	0	
RCR																						
0	104	104	104	104	94	94	94	94	75	75	75	58	58	58	43	43	43	36				
1	95	90	87	83	85	82	79	76	66	64	62	51	50	49	38	37	36	30				
2	86	79	73	68	78	72	67	62	58	54	51	45	43	41	33	32	31	25				
3	78	69	62	56	71	63	57	52	51	46	43	40	37	34	29	28	26	21				
4	72	61	53	47	65	56	49	44	45	40	36	35	32	29	26	24	22	18				
5	66	54	46	40	59	49	42	37	40	35	31	32	28	25	23	21	19	16				
6	60	48	40	35	54	44	37	32	36	31	27	28	25	22	21	19	17	14				
7	56	44	36	30	50	40	33	28	32	27	23	26	22	19	19	17	15	12				
8	51	39	32	27	46	36	29	25	29	24	21	23	20	17	18	15	13	11				
9	48	36	28	23	43	33	26	22	27	22	18	21	18	15	16	14	12	9				
10	44	33	26	21	40	30	24	19	25	20	16	20	16	13	15	12	11	8				

**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	0.9
10°-20°	253.1	3.2
20°-30°	420.4	5.2
30°-40°	530.4	6.6
40°-50°	567.0	7.1
50°-60°	500.4	6.2
60°-70°	321.2	4.0
70°-80°	142.4	1.8
80°-90°	39.1	0.5
90°-100°	127.6	1.6
100°-110°	846.3	10.5
110°-120°	1145.2	14.3
120°-130°	931.2	11.6
130°-140°	746.9	9.3
140°-150°	588.6	7.3
150°-160°	430.4	5.4
160°-170°	267.3	3.3
170°-180°	91.2	1.1
0°-30°	749.7	9.3
0°-40°	1280.0	16.0
0°-60°	2347.4	29.3
0°-90°	2850.1	35.5
90°-120°	2119.0	26.4
90°-150°	4385.6	54.7
90°-180°	5174.0	64.5
0°-180°	8024.6	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	18	22	28	25	10
95°	67	102	57	60	70	68
105°	199	298	1097	1396	923	211
115°	340	409	946	1957	2286	338
125°	482	546	892	1552	1833	428
135°	591	656	892	1277	1465	455
145°	700	758	898	1112	1230	439
155°	820	850	917	1008	1055	376
165°	911	922	941	965	983	256
175°	959	965	959	953	947	91
180°	959	959	959	959	959	



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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	17.5	18.3	18.1	16.1
90°	12.1	18.0	22.4	28.4	25.0
92.5°	30.7	32.5	35.5	45.0	46.4
95°	67.2	101.8	56.9	59.7	69.8
97.5°	102.6	183.6	361.1	108.0	92.2
100°	130.1	225.3	716.8	212.9	140.4
102.5°	157.7	258.9	967.6	554.8	303.1
105°	199.0	297.6	1096.7	1396.0	922.6
107.5°	242.1	314.5	1047.2	2031.0	1900.7
110°	269.7	338.7	1018.3	2134.0	2291.5



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**CANDELA DISTRIBUTION (continued):**

	0°	22.5°	45°	67.5°	90°
112.5°	298.6	367.7	989.3	2073.7	2339.7
115°	340.3	409.4	945.9	1957.0	2285.5
117.5°	384.6	452.8	935.0	1830.5	2168.5
120°	417.0	481.8	915.8	1734.4	2086.5
122.5°	441.1	509.3	890.2	1651.7	1975.5
125°	481.6	546.4	891.6	1551.9	1833.2
127.5°	514.8	582.2	891.1	1435.7	1713.8
130°	534.1	604.9	895.9	1356.8	1622.1
132.5°	555.5	626.2	893.2	1322.0	1540.1
135°	591.0	655.8	892.5	1276.7	1465.4
137.5°	621.1	690.7	892.5	1226.6	1388.2
140°	645.2	710.1	892.5	1197.3	1344.7
142.5°	669.4	729.5	897.3	1163.4	1301.3
145°	699.5	758.5	898.5	1112.2	1230.2
147.5°	735.7	787.6	905.7	1075.5	1166.3
150°	759.8	807.0	910.6	1051.0	1127.7
152.5°	783.9	826.4	910.6	1031.4	1093.9
155°	820.1	849.6	916.6	1008.1	1055.3
157.5°	849.1	877.4	923.8	993.4	1027.6
160°	868.4	891.9	928.7	983.6	1013.1
162.5°	882.8	906.4	933.5	978.6	998.6
165°	910.6	922.4	940.7	965.2	982.9
167.5°	926.2	936.9	946.8	959.1	969.7
170°	940.7	946.6	946.8	958.9	964.8
172.5°	945.5	956.2	951.6	954.1	960.0
175°	958.8	964.7	958.8	952.6	946.8
177.5°	958.8	963.5	958.8	958.7	954.0
180°	958.8	958.8	958.8	958.8	958.8

(END OF REPORT)