

Signify Classified - Internal  
Cooper Lighting Solutions Photometric Lab  
1121 Highway 74 South  
Peachtree City, GA 30269



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: P644492

Luminaire Tested: OMN4DIP-SR4F0-100D100U840-CLBOOB-1DUDD-WW

Issue Date: 2/16/2023



**Test Information**

Test Method: LM-79-2019  
Report Number: P644492  
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-SR4F0-100D100U840-CLBOOB-1DUDD-WW  
Description: NEO-RAY CIRQUE SUSPENDED LED LUMINAIRE  
DOWNLIGHT - BATWING LENS - 1000 LUMENS PER FOOT  
UPLIGHT - BATWING OPTIC - 1000 LUMENS PER FOOT  
Light Source: 4000K CCT, 80 CRI LEDS  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

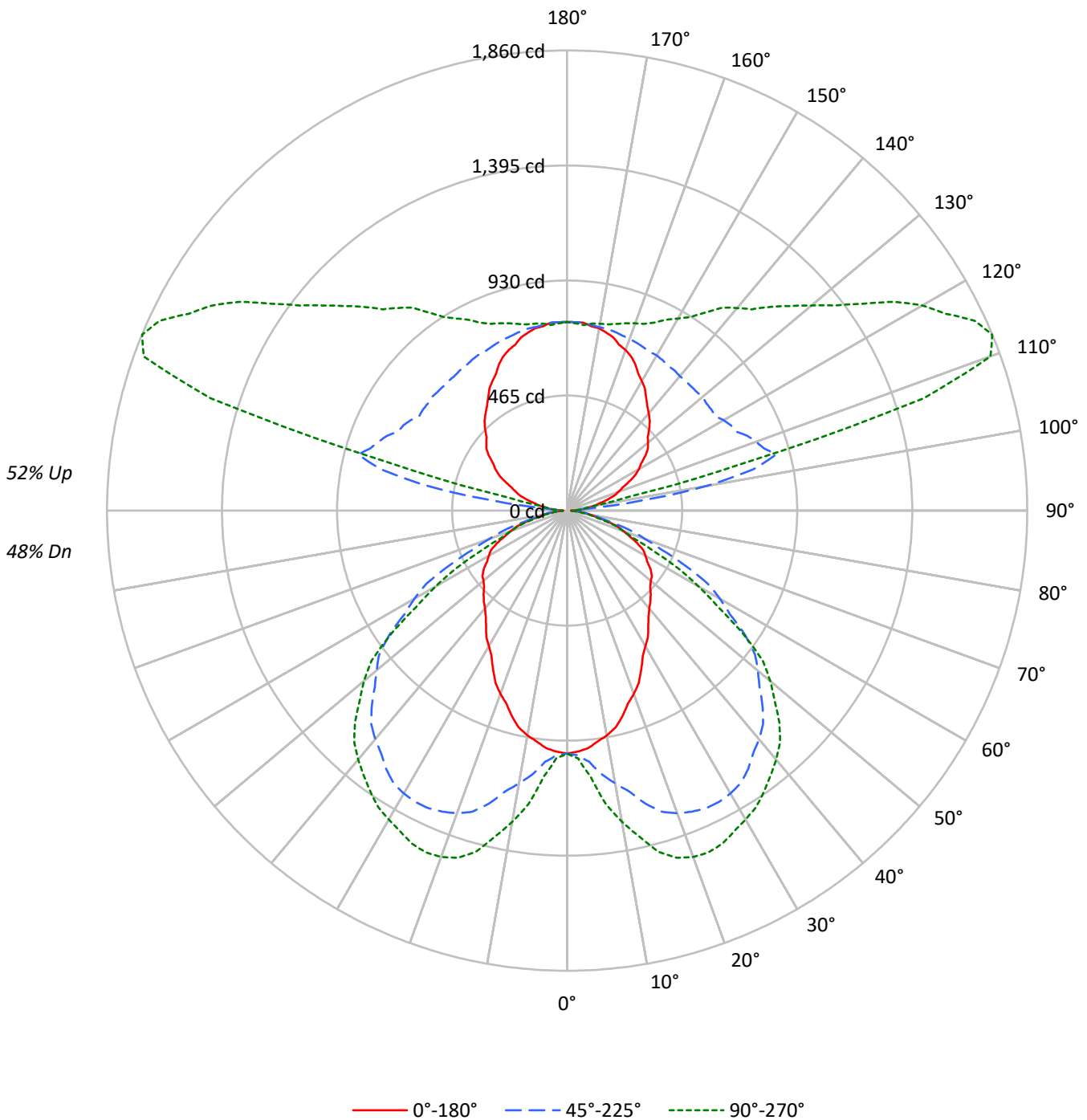
Lumens per Lamp: N/A  
Luminaire Lumens: 7895.1 lumens  
Efficiency: N/A  
Efficacy: 134.0 lumens/watt  
Spacing Criteria (0/90/45): 0.99 / 1.87 / 1.75  
Luminous Opening: Rectangular (W 0.17' x L: 4' x H: 0')  
CIE Type: General Diffuse

Input Watts (W): 58.9  
Input Voltage (V): 120  
Input Current (A<sub>in</sub>): 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	107	107	107	107	98	98	98	98	82	82	82	67	67	67	54	54	54	48				48
1	97	93	89	86	89	86	83	80	72	70	68	60	58	56	48	47	46				40	
2	89	81	75	70	81	75	70	65	63	59	56	52	50	47	42	40	39				34	
3	81	71	64	58	74	66	60	54	56	51	47	46	43	40	37	35	33				29	
4	74	63	55	49	68	58	51	46	49	44	40	41	37	34	33	30	28				24	
5	68	56	48	42	62	52	45	39	44	38	34	37	32	29	30	27	24				21	
6	62	50	42	36	57	46	39	34	39	34	30	33	29	25	27	24	21				18	
7	57	45	37	31	53	42	35	30	36	30	26	30	25	22	24	21	19				16	
8	53	41	33	28	49	38	31	26	32	27	23	27	23	20	22	19	17				14	
9	49	37	30	24	45	34	28	23	30	24	20	25	21	18	20	17	15				13	
10	46	34	27	22	42	32	25	21	27	22	18	23	19	16	19	16	13				11	

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

	0°	45°	90°
0°	15862	15862	15862
5°	15627	16515	17478
10°	15133	18354	20940
15°	14397	20508	23870
20°	13543	22376	25596
25°	12618	23648	26457
30°	11800	24621	26878
35°	11259	25129	27334
40°	10884	25425	27689
45°	10903	25510	27702
50°	11077	25252	26914
55°	11578	24760	24439
60°	11806	23018	19846
65°	11958	20164	14579
70°	11434	15857	11325
75°	10262	11828	9551
80°	8712	9345	7652
85°	8466	7614	6354

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 90°  
 Vertical Angle: 45°  
 Luminance: 27702 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	100.8	1.3
10°-20°	334.8	4.2
20°-30°	556.3	7.0
30°-40°	701.7	8.9
40°-50°	750.2	9.5
50°-60°	662.1	8.4
60°-70°	425.0	5.4
70°-80°	188.4	2.4
80°-90°	50.6	0.6
90°-100°	106.6	1.3
100°-110°	675.9	8.6
110°-120°	912.6	11.6
120°-130°	741.7	9.4
130°-140°	593.7	7.5
140°-150°	467.8	5.9
150°-160°	342.0	4.3
160°-170°	212.4	2.7
170°-180°	72.4	0.9
0°-30°	991.9	12.6
0°-40°	1693.6	21.5
0°-60°	3105.9	39.3
0°-90°	3769.8	47.7
90°-120°	1695.1	21.5
90°-150°	3498.3	44.3
90°-180°	4125.0	52.2
0°-180°	7895.1	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	982	982	982	982	982	
5°	964	993	1019	1054	1078	91
15°	861	993	1227	1374	1428	241
25°	708	961	1327	1452	1485	326
35°	571	877	1275	1358	1387	359
45°	478	750	1117	1186	1213	369
55°	411	590	880	884	868	365
65°	313	396	528	428	382	306
75°	164	182	190	162	153	176
85°	46	39	41	36	34	48
90°	16	21	23	28	24	13
95°	64	87	50	50	57	62
105°	165	242	874	1110	733	175
115°	275	329	754	1556	1816	273
125°	386	437	711	1234	1457	343
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	

TEST NUMBER: P644492

CATALOG NUMBER: OMN4DIP-SR4F0-100D100U840-CLBOOB-1DUDD-WW

**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	982.4	982.4	982.4	982.4	982.4
2.5°	975.1	989.4	989.8	995.4	1002.5
5°	964.2	993.2	1019.0	1053.8	1078.4
7.5°	941.3	993.1	1075.7	1156.5	1196.7
10°	923.0	994.5	1119.5	1228.0	1277.2
12.5°	899.3	994.0	1163.4	1294.0	1350.3
15°	861.3	993.2	1226.9	1374.4	1428.0
17.5°	817.5	989.1	1276.7	1424.5	1471.4
20°	788.2	984.8	1302.3	1442.7	1489.7
22.5°	755.3	975.2	1316.9	1451.8	1495.1
25°	708.3	960.7	1327.4	1451.6	1485.1
27.5°	662.1	940.0	1327.9	1433.2	1461.8
30°	632.9	923.3	1320.6	1414.9	1441.7
32.5°	607.3	904.9	1306.0	1393.0	1421.6
35°	571.2	877.2	1274.9	1357.8	1386.8
37.5°	540.1	845.7	1235.6	1316.3	1350.3
40°	516.4	820.2	1206.3	1286.9	1313.7
42.5°	498.1	793.0	1171.6	1250.3	1273.5
45°	477.5	750.1	1117.2	1186.4	1213.2
47.5°	455.6	705.8	1054.6	1119.9	1137.3
50°	441.0	673.3	1005.3	1064.8	1071.5
52.5°	431.8	639.1	957.8	995.3	996.6
55°	411.3	590.0	879.6	883.8	868.2
57.5°	383.8	532.6	780.5	758.1	720.6
60°	365.6	492.9	712.8	668.2	614.6
62.5°	347.3	455.0	641.6	569.3	506.8
65°	313.0	395.7	527.8	428.5	381.6
67.5°	273.3	330.4	414.5	320.5	289.2
70°	242.2	286.9	335.9	262.2	239.9
72.5°	212.9	243.3	271.9	216.8	205.2
75°	164.5	182.4	189.6	162.0	153.1
77.5°	121.1	122.0	131.6	114.1	109.7
80°	93.7	89.2	100.5	86.7	82.3
82.5°	71.7	65.5	73.1	63.0	60.3
85°	45.7	39.0	41.1	36.5	34.3
87.5°	27.0	22.5	22.9	22.0	19.3
90°	16.0	20.7	23.3	28.0	23.5
92.5°	33.0	32.3	33.0	39.8	39.0
95°	63.5	87.3	49.8	50.2	57.3
97.5°	90.4	152.2	290.5	87.7	74.2
100°	111.6	184.6	572.4	171.0	112.5
102.5°	132.8	211.3	771.8	442.0	241.1
105°	164.6	242.0	874.3	1110.4	733.3
107.5°	198.6	254.6	835.0	1615.1	1510.7
110°	219.8	273.8	812.0	1697.0	1821.3



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**CANDELA DISTRIBUTION (continued):**

	0°	22.5°	45°	67.5°	90°
112.5°	242.8	296.8	789.0	1649.1	1859.6
115°	275.0	329.0	754.5	1556.3	1816.5
117.5°	310.0	363.5	745.9	1455.8	1723.5
120°	335.0	386.6	730.6	1379.4	1658.3
122.5°	354.2	407.7	709.6	1313.7	1570.1
125°	385.5	437.0	711.4	1234.3	1457.0
127.5°	411.0	465.3	710.1	1141.8	1362.1
130°	426.3	482.6	713.9	1078.4	1289.3
132.5°	441.8	498.1	710.2	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)