

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: P644642

Luminaire Tested: OMN4DIP-SR4F0-100D75U840-CLBOOB-1DUDD-WW

Issue Date: 2/16/2023



Test Information

Test Method: LM-79-2019
Report Number: P644642
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-SR4F0-100D75U840-CLBOOB-1DUDD-WW
Description: NEO-RAY CIRQUE SUSPENDED LED LUMINAIRE
DOWNLIGHT - BATWING LENS - 1000 LUMENS PER FOOT
UPLIGHT - BATWING OPTIC - 750 LUMENS PER FOOT
Light Source: 4000K CCT, 80 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

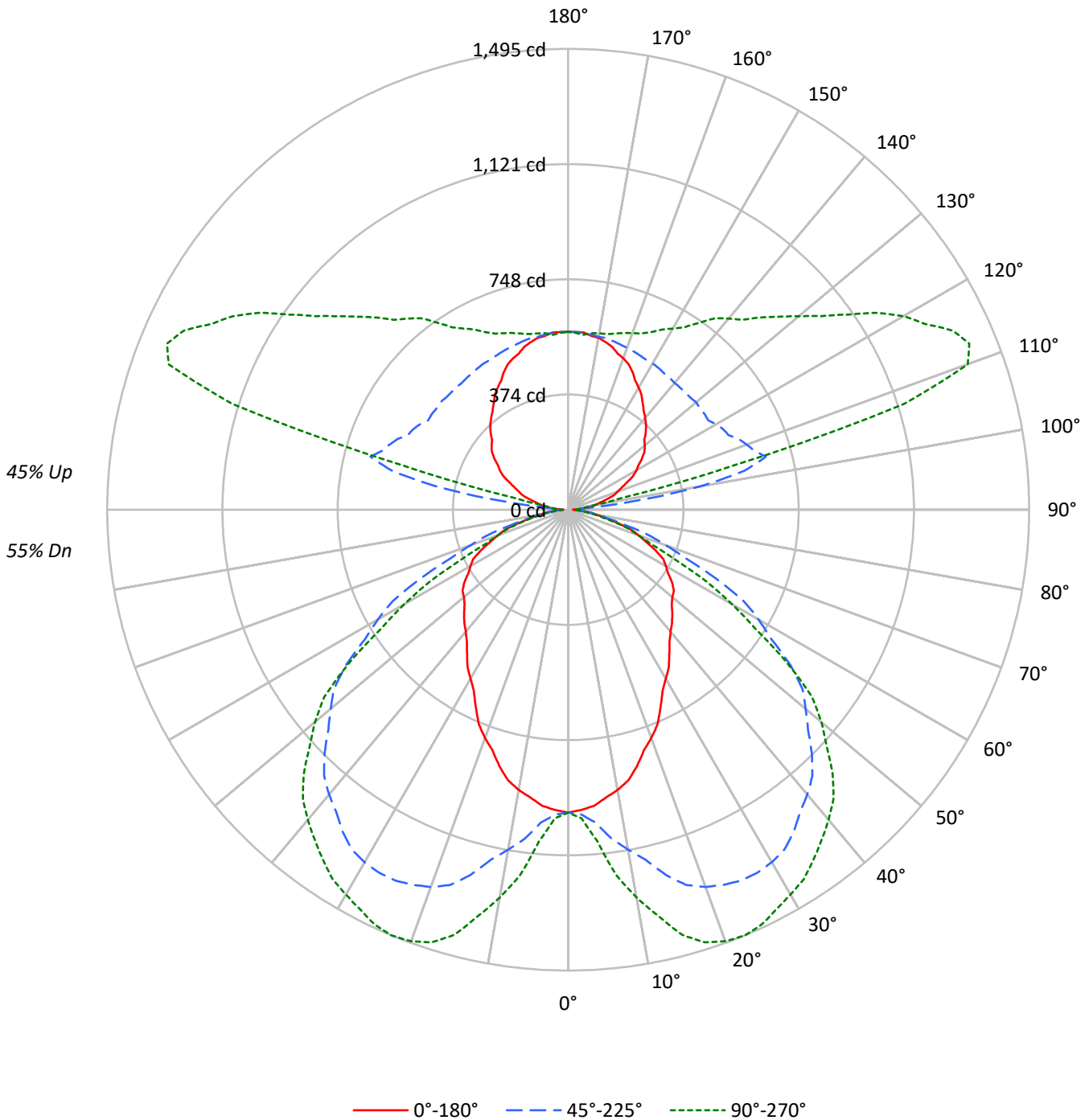
Lumens per Lamp: N/A
Luminaire Lumens: 6900.5 lumens
Efficiency: N/A
Efficacy: 136.1 lumens/watt
Spacing Criteria (0/90/45): 0.99 / 1.87 / 1.75
Luminous Opening: Rectangular (W 0.17' x L: 4' x H: 0')
CIE Type: General Diffuse

Input Watts (W): 50.7
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	108	108	108	108	100	100	100	100	86	86	86	73	73	73	60	60	60	55				
1	99	95	91	87	92	88	85	82	76	73	71	64	62	61	54	52	51	46				
2	90	83	76	71	83	77	72	67	66	62	59	56	53	51	47	45	43	39				
3	82	73	65	59	76	68	61	56	58	53	49	50	46	43	42	39	37	33				
4	75	64	56	50	69	60	53	47	52	46	42	44	40	36	37	34	31	28				
5	69	57	49	43	64	53	46	40	46	40	36	39	35	31	33	30	27	24				
6	63	51	43	37	58	48	40	35	41	35	31	35	31	27	30	26	24	21				
7	58	46	38	32	54	43	36	30	37	31	27	32	27	24	27	24	21	18				
8	54	42	34	28	50	39	32	27	34	28	24	29	25	21	25	21	19	16				
9	50	38	30	25	47	35	29	24	31	25	21	27	22	19	23	19	17	14				
10	47	35	27	22	43	33	26	21	28	23	19	25	20	17	21	18	15	13				

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	1.5
10°-20°	334.8	4.9
20°-30°	556.3	8.1
30°-40°	701.7	10.2
40°-50°	750.2	10.9
50°-60°	662.1	9.6
60°-70°	425.0	6.2
70°-80°	188.4	2.7
80°-90°	50.1	0.7
90°-100°	83.8	1.2
100°-110°	513.7	7.4
110°-120°	692.5	10.0
120°-130°	562.6	8.2
130°-140°	449.7	6.5
140°-150°	354.2	5.1
150°-160°	259.0	3.8
160°-170°	160.9	2.3
170°-180°	54.9	0.8
0°-30°	991.9	14.4
0°-40°	1693.6	24.5
0°-60°	3105.9	45.0
0°-90°	3769.4	54.6
90°-120°	1290.0	18.7
90°-150°	2656.4	38.5
90°-180°	3131.0	45.4
0°-180°	6900.5	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	20	21	24	20	12
95°	54	70	40	40	44	51
105°	128	187	664	841	555	137
115°	211	251	573	1179	1375	210
125°	294	333	540	935	1103	261
135°	356	395	537	768	882	274
145°	421	456	541	669	740	264
155°	494	511	552	607	635	227
165°	548	555	566	581	592	154
175°	577	580	577	573	570	55
180°	577	577	577	577	577	



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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	22.3	22.5	21.3	18.6
90°	16.0	19.5	21.0	24.5	20.0
92.5°	30.2	28.4	27.8	32.5	30.9
95°	54.2	70.1	40.5	39.6	44.5
97.5°	73.9	119.0	222.1	67.5	56.7
100°	89.5	143.1	435.1	130.6	85.7
102.5°	105.1	163.3	586.0	335.3	182.6
105°	128.5	186.6	663.7	841.3	555.2
107.5°	154.2	195.6	633.9	1223.4	1143.8
110°	169.7	210.1	616.5	1285.4	1378.9

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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	187.2	227.5	599.1	1249.1	1408.0
115°	211.0	251.4	572.9	1178.9	1375.3
117.5°	237.4	277.5	566.4	1102.8	1304.9
120°	255.9	294.9	554.8	1044.9	1255.6
122.5°	270.4	310.5	538.5	995.2	1188.8
125°	293.5	332.6	540.3	935.1	1103.2
127.5°	312.3	353.8	538.7	864.9	1031.3
130°	323.9	366.5	541.6	816.5	976.2
132.5°	334.8	377.3	538.0	795.5	926.8
135°	355.6	394.7	537.1	768.3	881.8
137.5°	373.8	415.6	537.1	738.1	835.4
140°	388.3	427.3	537.1	720.5	809.2
142.5°	402.8	439.0	540.0	700.1	783.1
145°	420.9	456.4	540.7	669.3	740.3
147.5°	442.7	473.9	545.0	647.2	701.8
150°	457.2	485.6	548.0	632.5	678.6
152.5°	471.7	497.3	548.0	620.7	658.3
155°	493.5	511.3	551.6	606.7	635.0
157.5°	510.9	528.0	555.9	597.8	618.3
160°	522.5	536.7	558.8	591.9	609.6
162.5°	531.3	545.5	561.7	588.9	600.9
165°	548.0	555.0	566.1	580.9	591.5
167.5°	557.4	563.8	569.7	577.1	583.5
170°	566.1	569.6	569.7	577.1	580.6
172.5°	569.0	575.4	572.6	574.2	577.7
175°	577.0	580.5	577.0	573.3	569.7
177.5°	577.0	579.8	577.0	576.9	574.1
180°	577.0	577.0	577.0	577.0	577.0

(END OF REPORT)