

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: P644850

Luminaire Tested: OMN4DIP-SR4F0-50D100U835-FLLOOB-1DUDD-WW

Issue Date: 2/16/2023



**Test Information**

Test Method: LM-79-2019  
Report Number: P644850  
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2203-563-26, G2-2206-689-19)  
Test Lab: INNOVATION CENTER  
Issue Date: 2/16/2023  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: NEO-RAY  
Catalog Number: OMN4DIP-SR4F0-50D100U835-FLLOOB-1DUDD-WW  
Description: NEO-RAY CIRQUE SUSPENDED LED LUMINAIRE  
DOWNLIGHT - FLAT FROSTED LENS - 500 LUMENS PER FOOT  
UPLIGHT - BATWING OPTIC - 1000 LUMENS PER FOOT  
Light Source: 3500K CCT, 80 CRI LEDS  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

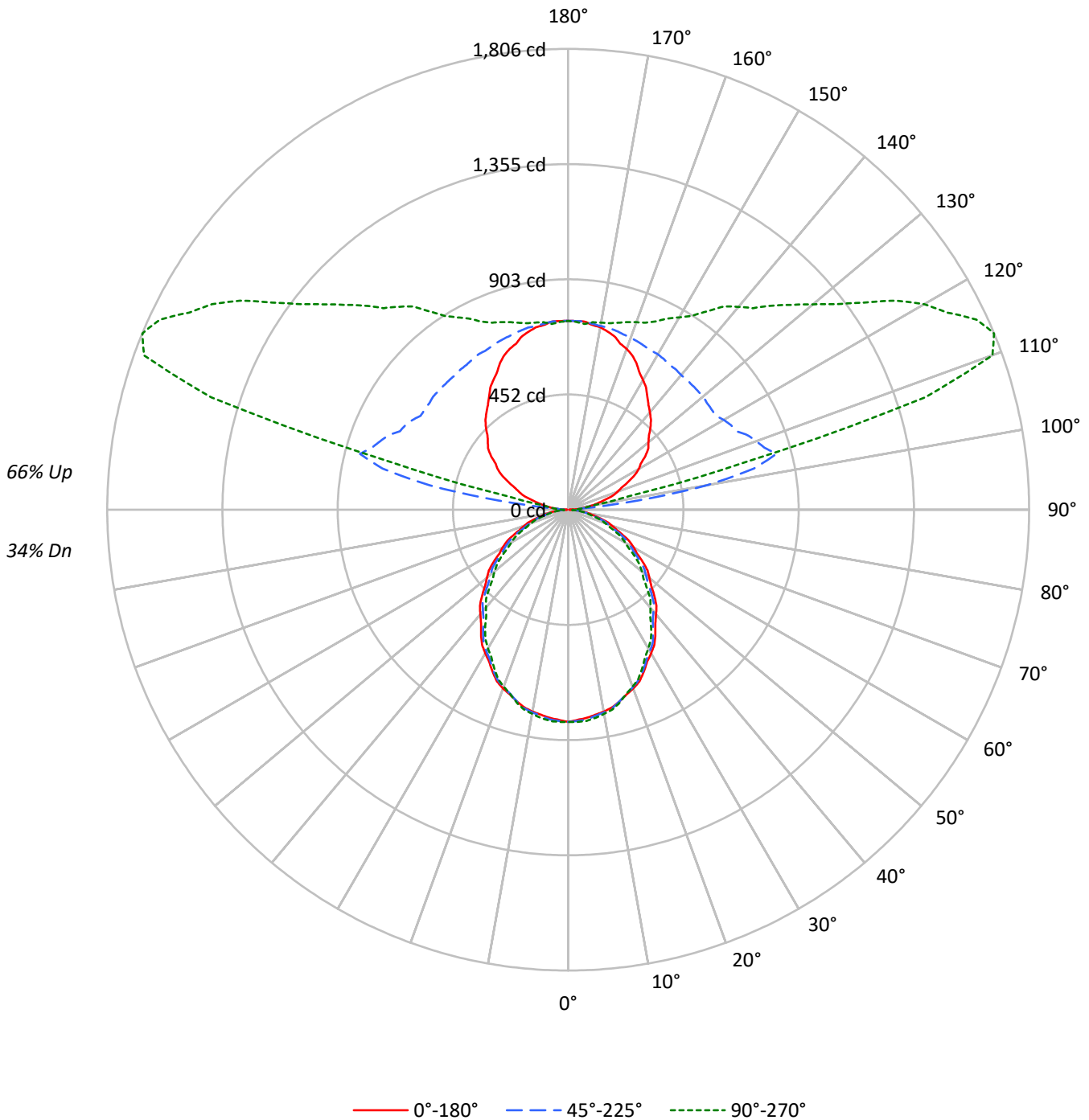
Lumens per Lamp: N/A  
Luminaire Lumens: 6005.6 lumens  
Efficiency: N/A  
Efficacy: 138.7 lumens/watt  
Spacing Criteria (0/90/45): 1.17 / 1.13 / 1.26  
Luminous Opening: Rectangular (W 0.17' x L: 4' x H: 0')  
CIE Type: Semi-Indirect

Input Watts (W): 43.3  
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										
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	50	30	10	0														
RCR																																						
0	103	103	103	103	93	93	93	93	74	74	74	57	57	57	41	41	41	34																				
1	94	90	86	83	85	81	78	75	65	63	61	50	49	47	36	35	35	28																				
2	86	79	73	68	77	71	66	62	57	53	50	44	42	40	32	31	29	24																				
3	78	69	62	56	70	63	57	52	50	46	42	39	36	34	28	27	25	20																				
4	72	61	53	48	64	55	49	44	45	40	36	35	31	29	25	23	22	18																				
5	66	54	47	41	59	49	43	37	40	35	31	31	28	25	23	21	19	15																				
6	60	49	41	35	54	44	37	32	36	31	27	28	25	22	21	18	17	13																				
7	56	44	36	31	50	40	33	28	33	27	24	26	22	19	19	17	15	12																				
8	52	40	32	27	47	36	30	25	30	25	21	23	20	17	17	15	13	11																				
9	48	36	29	24	43	33	27	22	27	22	19	21	18	15	16	14	12	10																				
10	45	33	26	21	40	30	24	20	25	20	17	20	16	14	15	13	11	9																				

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

	0°	45°	90°
0°	13430	13430	13430
5°	13279	13371	13462
10°	13173	13229	13321
15°	12996	12996	13071
20°	12814	12716	12677
25°	12479	12378	12218
30°	12111	11941	11710
35°	11734	11442	11176
40°	11282	10947	10566
45°	10905	10492	9974
50°	10432	9977	9465
55°	10035	9526	8952
60°	9574	9064	8296
65°	9077	8432	7782
70°	8601	7799	7265
75°	8047	7130	6775
80°	7364	6527	6211
85°	6910	6076	5669

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 0°  
 Vertical Angle: 45°  
 Luminance: 10905 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	78.2	1.3
10°-20°	219.6	3.7
20°-30°	319.3	5.3
30°-40°	363.2	6.0
40°-50°	354.1	5.9
50°-60°	302.2	5.0
60°-70°	219.6	3.7
70°-80°	124.2	2.1
80°-90°	39.9	0.7
90°-100°	95.8	1.6
100°-110°	651.0	10.8
110°-120°	881.8	14.7
120°-130°	717.3	11.9
130°-140°	576.3	9.6
140°-150°	454.2	7.6
150°-160°	332.1	5.5
160°-170°	206.3	3.4
170°-180°	70.3	1.2
0°-30°	617.1	10.3
0°-40°	980.2	16.3
0°-60°	1636.6	27.3
0°-90°	2020.3	33.6
90°-120°	1628.6	27.1
90°-150°	3376.5	56.2
90°-180°	3985.0	66.4
0°-180°	6005.6	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	832	832	832	832	832	
5°	819	832	825	824	831	78
15°	778	787	778	776	782	219
25°	700	707	695	682	686	322
35°	595	598	580	567	567	372
45°	478	475	460	444	437	368
55°	356	355	338	322	318	318
65°	238	235	221	207	204	236
75°	129	125	114	110	109	137
85°	37	33	33	32	31	40
90°	4	10	16	20	20	6
95°	46	74	41	46	54	48
105°	150	225	845	1077	712	159
115°	259	313	727	1509	1764	258
125°	370	420	685	1196	1415	329
135°	456	506	689	985	1131	351
145°	540	585	693	858	949	339
155°	633	656	707	778	814	291
165°	703	712	726	745	759	197
175°	740	744	740	735	731	70
180°	740	740	740	740	740	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	831.8	831.8	831.8	831.8	831.8
2.5°	824.5	835.2	829.1	829.1	832.7
5°	819.3	831.5	825.0	824.0	830.6
7.5°	810.7	822.7	815.0	813.9	822.5
10°	803.5	814.5	806.9	804.8	812.5
12.5°	793.5	804.6	796.9	793.9	801.7
15°	777.5	787.4	777.5	776.4	782.0
17.5°	759.3	768.0	756.4	752.7	756.9
20°	745.8	753.5	740.1	734.5	737.8
22.5°	728.6	736.3	722.0	713.7	717.9
25°	700.5	707.1	694.8	682.5	685.8
27.5°	670.4	675.5	663.2	650.5	651.6
30°	649.6	652.9	640.5	627.0	628.1
32.5°	627.8	630.3	617.0	602.5	602.7
35°	595.3	597.5	580.5	567.0	567.0
37.5°	560.6	562.0	543.9	529.1	527.6
40°	535.3	537.5	519.4	504.6	501.3
42.5°	511.7	512.2	495.9	481.1	476.9
45°	477.6	475.4	459.5	443.5	436.8
47.5°	440.7	440.7	422.6	406.6	400.4
50°	415.3	415.3	397.2	381.3	376.8
52.5°	391.8	390.9	373.7	357.7	351.5
55°	356.5	355.4	338.4	322.4	318.0
57.5°	319.1	319.1	303.3	286.2	281.3
60°	296.5	296.5	280.7	263.5	256.9
62.5°	272.1	271.2	255.3	240.0	236.1
65°	237.6	235.4	220.7	207.0	203.7
67.5°	204.8	202.6	187.0	176.0	173.8
70°	182.2	180.0	165.2	156.1	153.9
72.5°	160.5	157.4	144.4	137.1	134.9
75°	129.0	124.6	114.3	109.7	108.6
77.5°	99.1	91.6	87.4	84.2	83.1
80°	79.2	72.6	70.2	67.9	66.8
82.5°	62.0	55.4	54.8	53.4	52.3
85°	37.3	32.9	32.8	31.7	30.6
87.5°	16.3	14.8	15.9	16.6	16.6
90°	4.5	10.2	16.1	19.6	19.6
92.5°	19.3	21.4	25.5	33.7	36.4
95°	46.3	73.7	40.6	45.5	53.5
97.5°	74.0	137.1	276.8	82.7	70.9
100°	96.3	170.4	551.4	162.8	108.2
102.5°	117.8	195.5	745.0	427.7	233.9
105°	149.9	225.1	844.6	1077.2	712.1
107.5°	183.2	239.5	806.5	1567.3	1466.9
110°	204.6	258.2	784.1	1646.8	1768.5



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**CANDELA DISTRIBUTION (continued):**

	0°	22.5°	45°	67.5°	90°
112.5°	227.0	280.5	761.8	1600.3	1805.8
115°	259.4	312.9	727.2	1509.0	1763.9
117.5°	293.8	346.4	718.8	1411.5	1673.6
120°	319.9	368.8	703.9	1337.3	1610.3
122.5°	337.6	391.1	685.3	1273.5	1524.7
125°	369.9	420.0	685.3	1196.4	1414.8
127.5°	395.8	447.6	686.2	1107.0	1322.7
130°	410.7	465.3	689.9	1047.2	1251.9
132.5°	428.4	483.0	689.0	1020.3	1188.6
135°	456.1	506.2	688.8	985.3	1130.9
137.5°	479.4	533.1	688.8	946.7	1071.4
140°	498.0	548.0	688.8	924.1	1037.8
142.5°	516.6	563.0	692.5	897.9	1004.3
145°	539.9	585.4	693.4	858.4	949.4
147.5°	567.8	607.8	699.0	830.0	900.1
150°	586.4	622.8	702.8	811.1	870.3
152.5°	605.0	637.8	702.8	796.0	844.2
155°	632.9	655.7	707.4	778.0	814.5
157.5°	655.3	677.1	713.0	766.7	793.0
160°	670.2	688.4	716.7	759.1	781.9
162.5°	681.3	699.6	720.4	755.2	770.7
165°	702.8	711.9	726.0	745.0	758.6
167.5°	714.9	723.0	730.7	740.2	748.4
170°	726.0	730.6	730.7	740.1	744.6
172.5°	729.8	737.9	734.4	736.4	740.9
175°	740.0	744.5	740.0	735.2	730.7
177.5°	740.0	743.6	740.0	739.9	736.3
180°	740.0	740.0	740.0	740.0	740.0

(END OF REPORT)