

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: P644880

Luminaire Tested: OMN4DIP-SR4F0-50D125U835-FLLOOB-1DUDD-WW

Issue Date: 2/16/2023



**Test Information**

Test Method: LM-79-2019  
Report Number: P644880  
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-SR4F0-50D125U835-FLLOOB-1DUDD-WW  
Description: NEO-RAY CIRQUE SUSPENDED LED LUMINAIRE  
DOWNLIGHT - FLAT FROSTED LENS - 500 LUMENS PER FOOT  
UPLIGHT - BATWING OPTIC - 1250 LUMENS PER FOOT  
Light Source: 3500K CCT, 80 CRI LEDS  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

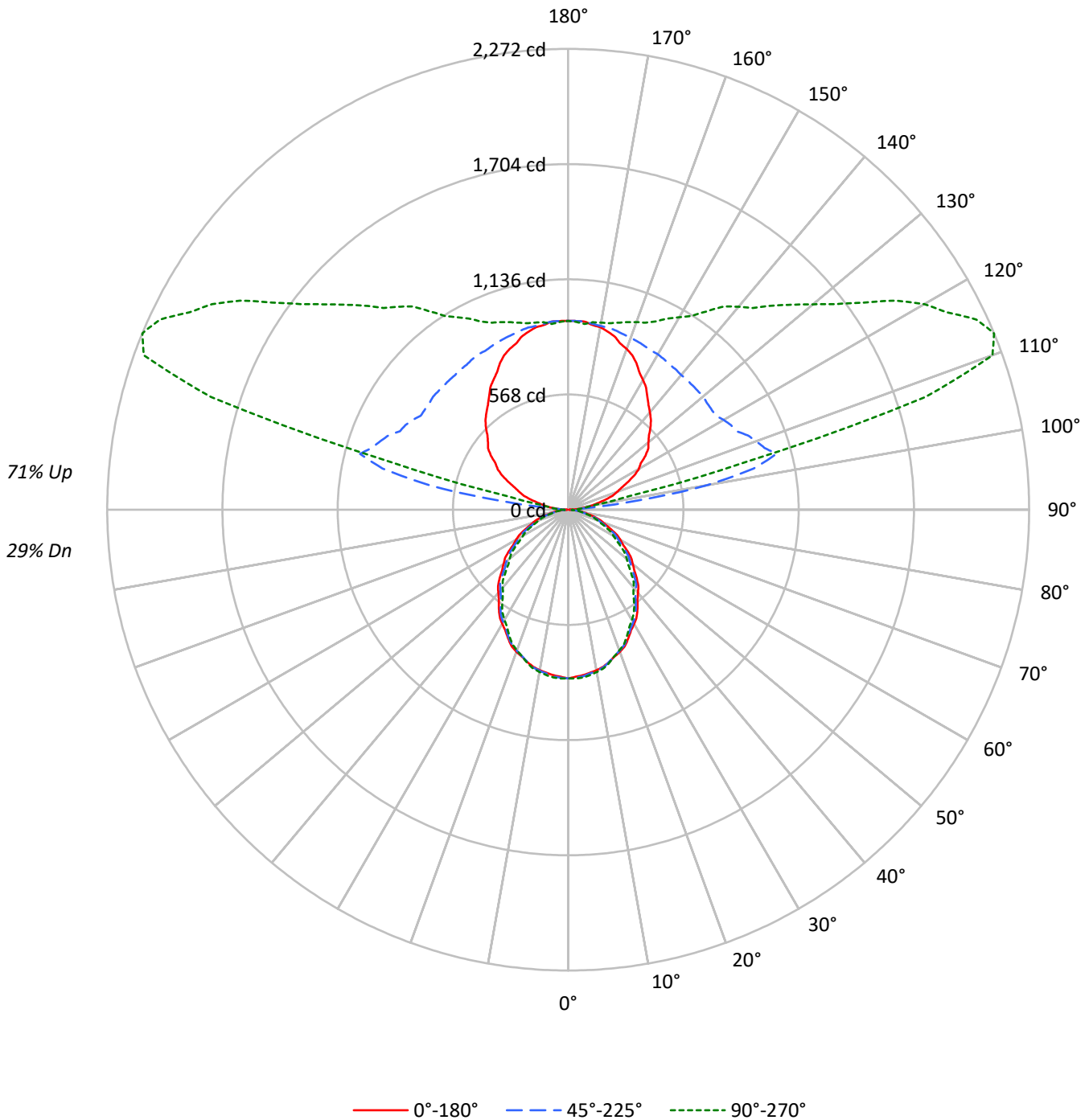
Lumens per Lamp: N/A  
Luminaire Lumens: 7032.3 lumens  
Efficiency: N/A  
Efficacy: 133.9 lumens/watt  
Spacing Criteria (0/90/45): 1.17 / 1.13 / 1.26  
Luminous Opening: Rectangular (W 0.17' x L: 4' x H: 0')  
CIE Type: Semi-Indirect

Input Watts (W): 52.5  
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										
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	102	102	102	102	91	91	91	91	72	72	72	53	53	53	37	37	37	29																				
1	93	89	85	82	83	80	77	74	63	60	59	47	46	44	32	32	31	24																				
2	85	78	72	67	76	70	65	61	55	51	49	41	39	37	29	27	26	20																				
3	77	68	61	56	69	61	55	51	48	44	41	36	34	31	25	24	22	17																				
4	71	60	53	47	63	54	48	43	43	38	35	32	29	27	23	21	19	15																				
5	65	54	46	40	58	48	42	37	38	34	30	29	26	23	20	18	17	13																				
6	60	48	40	35	53	43	37	32	34	30	26	26	23	20	19	16	15	11																				
7	55	43	36	30	49	39	32	28	31	26	23	24	20	18	17	15	13	10																				
8	51	39	32	27	46	35	29	24	28	24	20	22	18	16	16	13	12	9																				
9	47	36	28	24	42	32	26	22	26	21	18	20	17	14	14	12	11	8																				
10	44	33	26	21	40	30	23	19	24	19	16	18	15	13	13	11	10	8																				

**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	1.1
10°-20°	219.6	3.1
20°-30°	319.3	4.5
30°-40°	363.2	5.2
40°-50°	354.1	5.0
50°-60°	302.2	4.3
60°-70°	219.6	3.1
70°-80°	124.2	1.8
80°-90°	40.3	0.6
90°-100°	119.3	1.7
100°-110°	818.4	11.6
110°-120°	1109.1	15.8
120°-130°	902.3	12.8
130°-140°	725.0	10.3
140°-150°	571.5	8.1
150°-160°	417.9	5.9
160°-170°	259.6	3.7
170°-180°	88.5	1.3
0°-30°	617.1	8.8
0°-40°	980.2	13.9
0°-60°	1636.6	23.3
0°-90°	2020.8	28.7
90°-120°	2046.8	29.1
90°-150°	4245.6	60.4
90°-180°	5012.0	71.3
0°-180°	7032.3	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	11	18	23	23	7
95°	56	92	50	56	67	59
105°	187	282	1062	1355	896	198
115°	326	393	915	1899	2219	324
125°	465	528	862	1505	1780	413
135°	574	637	867	1240	1423	442
145°	679	736	872	1080	1195	427
155°	796	825	890	979	1025	366
165°	884	896	914	937	954	248
175°	931	937	931	925	919	88
180°	931	931	931	931	931	



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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	15.0	16.4	17.3	17.3
90°	4.5	11.4	18.5	23.2	23.2
92.5°	22.2	25.5	30.7	41.1	44.8
95°	55.9	91.6	50.2	56.3	66.7
97.5°	91.1	171.3	347.5	103.6	89.0
100°	119.2	213.2	693.2	204.5	135.8
102.5°	146.4	245.0	936.8	537.8	294.2
105°	187.2	282.3	1062.1	1355.1	895.9
107.5°	229.1	300.4	1014.1	1971.6	1845.7
110°	256.3	323.9	986.0	2071.7	2225.2



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**CANDELA DISTRIBUTION (continued):**

	0°	22.5°	45°	67.5°	90°
112.5°	284.4	352.0	957.9	2013.2	2272.0
115°	325.5	393.1	914.6	1898.7	2219.3
117.5°	368.8	435.2	904.1	1775.9	2105.7
120°	401.6	463.5	885.3	1682.5	2026.1
122.5°	424.1	491.4	861.9	1602.3	1918.3
125°	464.9	527.8	861.9	1505.3	1780.1
127.5°	497.7	562.7	863.1	1392.8	1664.2
130°	516.4	585.1	867.8	1317.5	1575.2
132.5°	539.0	607.7	866.9	1283.7	1495.5
135°	573.9	636.8	866.6	1239.7	1422.9
137.5°	603.1	670.7	866.6	1191.1	1348.0
140°	626.6	689.5	866.6	1162.7	1305.8
142.5°	650.0	708.4	871.3	1129.7	1263.7
145°	679.3	736.5	872.5	1080.1	1194.6
147.5°	714.4	764.8	879.5	1044.3	1132.5
150°	737.8	783.6	884.2	1020.6	1095.0
152.5°	761.2	802.5	884.2	1001.5	1062.2
155°	796.4	825.0	890.1	978.9	1024.7
157.5°	824.5	852.0	897.1	964.6	997.8
160°	843.2	866.1	901.8	955.1	983.8
162.5°	857.3	880.2	906.5	950.2	969.7
165°	884.2	895.7	913.5	937.3	954.5
167.5°	899.4	909.7	919.3	931.3	941.6
170°	913.5	919.2	919.3	931.2	936.9
172.5°	918.2	928.5	924.0	926.5	932.2
175°	931.1	936.8	931.1	925.1	919.3
177.5°	931.1	935.6	931.1	931.0	926.4
180°	931.1	931.1	931.1	931.1	931.1

(END OF REPORT)