

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: P644899

Luminaire Tested: OMN4DIP-SR4F0-50D125U940-CLBOOB-1DUDD-WW

Issue Date: 2/16/2023



**Test Information**

Test Method: LM-79-2019  
Report Number: P644899  
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-SR4F0-50D125U940-CLBOOB-1DUDD-WW  
Description: NEO-RAY CIRQUE SUSPENDED LED LUMINAIRE  
DOWNLIGHT - BATWING LENS - 500 LUMENS PER FOOT  
UPLIGHT - BATWING OPTIC - 1250 LUMENS PER FOOT  
Light Source: 4000K CCT, 90 CRI LEDS  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

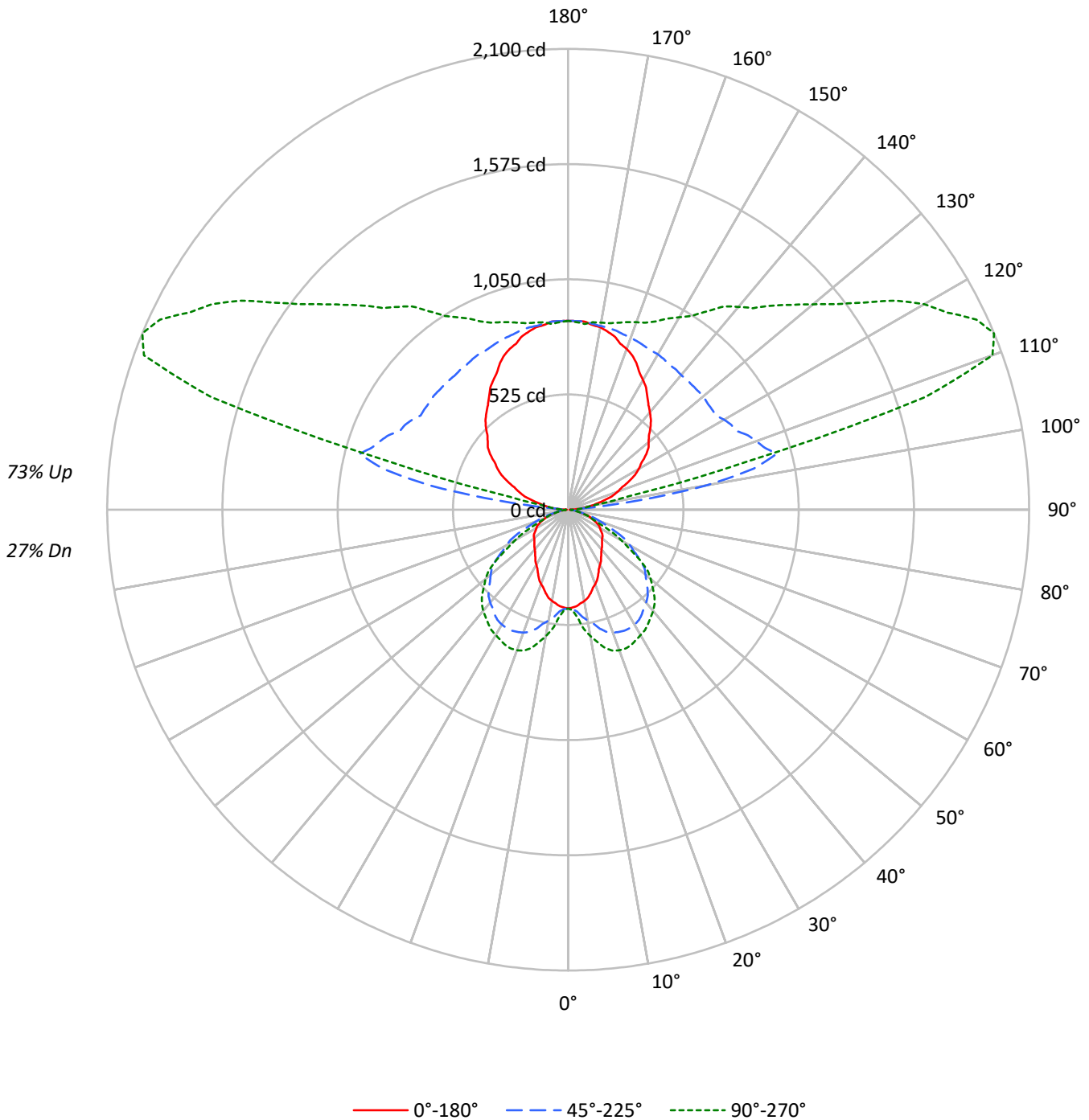
Lumens per Lamp: N/A  
Luminaire Lumens: 6363.4 lumens  
Efficiency: N/A  
Efficacy: 121.2 lumens/watt  
Spacing Criteria (0/90/45): 0.99 / 1.87 / 1.75  
Luminous Opening: Rectangular (W 0.17' x L: 4' x H: 0')  
CIE Type: Semi-Indirect

Input Watts (W): 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	71	71	71	52	52	52	35	35	35	27																				
1	93	89	85	81	83	79	76	73	62	60	58	46	45	43	31	30	30	23																				
2	84	77	71	66	75	69	64	60	54	51	48	40	38	36	27	26	25	19																				
3	77	68	61	55	68	61	55	50	48	43	40	35	33	30	24	23	21	16																				
4	70	60	52	46	62	54	47	42	42	38	34	31	28	26	21	20	18	14																				
5	64	53	45	39	57	48	41	36	38	33	29	28	25	22	19	17	16	12																				
6	59	47	40	34	52	43	36	31	34	29	25	25	22	19	17	15	14	10																				
7	54	43	35	29	48	38	32	27	30	25	22	23	19	17	16	14	12	9																				
8	50	38	31	26	45	35	28	24	27	23	19	21	17	15	14	12	11	8																				
9	47	35	28	23	42	31	25	21	25	20	17	19	16	13	13	11	10	7																				
10	43	32	25	20	39	29	23	18	23	18	15	17	14	12	12	10	9	6																				

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

	0°	45°	90°
0°	7261	7261	7261
5°	7152	7559	8000
10°	6927	8402	9584
15°	6591	9387	10927
20°	6199	10242	11716
25°	5776	10824	12111
30°	5401	11270	12303
35°	5154	11503	12512
40°	4983	11639	12676
45°	4991	11677	12680
50°	5069	11560	12321
55°	5301	11336	11187
60°	5402	10537	9084
65°	5475	9230	6674
70°	5235	7256	5183
75°	4697	5415	4373
80°	3989	4277	3505
85°	3872	3483	2908

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 90°  
 Vertical Angle: 45°  
 Luminance: 12680 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	46.1	0.7
10°-20°	153.3	2.4
20°-30°	254.6	4.0
30°-40°	321.2	5.0
40°-50°	343.4	5.4
50°-60°	303.1	4.8
60°-70°	194.5	3.1
70°-80°	86.3	1.4
80°-90°	24.3	0.4
90°-100°	111.7	1.8
100°-110°	757.6	11.9
110°-120°	1026.3	16.1
120°-130°	834.8	13.1
130°-140°	670.1	10.5
140°-150°	528.2	8.3
150°-160°	386.2	6.1
160°-170°	239.9	3.8
170°-180°	81.8	1.3
0°-30°	454.0	7.1
0°-40°	775.2	12.2
0°-60°	1421.7	22.3
0°-90°	1726.8	27.1
90°-120°	1895.6	29.8
90°-150°	3928.7	61.7
90°-180°	4637.0	72.9
0°-180°	6363.4	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	450	450	450	450	450	
5°	441	455	466	482	494	41
15°	394	455	562	629	654	110
25°	324	440	608	664	680	149
35°	262	402	584	622	635	164
45°	219	343	511	543	555	169
55°	188	270	403	405	397	167
65°	143	181	242	196	175	140
75°	75	84	87	74	70	80
85°	21	18	19	17	16	22
90°	7	13	17	22	20	7
95°	55	88	48	52	62	57
105°	175	264	983	1252	828	185
115°	303	365	847	1756	2051	301
125°	431	489	799	1392	1645	383
135°	530	588	801	1146	1315	408
145°	628	681	806	998	1104	394
155°	736	762	823	905	947	338
165°	817	828	844	866	882	229
175°	860	866	860	855	850	81
180°	860	860	860	860	860	

TEST NUMBER: P644899

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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	449.7	449.7	449.7	449.7	449.7
2.5°	446.4	452.9	453.1	455.6	458.9
5°	441.3	454.6	466.4	482.4	493.6
7.5°	430.9	454.6	492.4	529.4	547.8
10°	422.5	455.2	512.5	562.1	584.6
12.5°	411.6	455.0	532.5	592.3	618.1
15°	394.3	454.6	561.6	629.1	653.7
17.5°	374.2	452.7	584.4	652.1	673.5
20°	360.8	450.8	596.1	660.4	681.9
22.5°	345.8	446.4	602.8	664.6	684.4
25°	324.2	439.8	607.6	664.5	679.8
27.5°	303.1	430.3	607.8	656.0	669.1
30°	289.7	422.6	604.5	647.7	659.9
32.5°	278.0	414.2	597.8	637.6	650.7
35°	261.5	401.6	583.6	621.5	634.8
37.5°	247.2	387.1	565.6	602.6	618.1
40°	236.4	375.4	552.2	589.1	601.4
42.5°	228.0	363.0	536.3	572.3	583.0
45°	218.6	343.3	511.4	543.1	555.3
47.5°	208.5	323.1	482.8	512.6	520.6
50°	201.8	308.2	460.2	487.4	490.5
52.5°	197.7	292.6	438.4	455.6	456.2
55°	188.3	270.1	402.7	404.6	397.4
57.5°	175.7	243.8	357.3	347.0	329.9
60°	167.3	225.6	326.3	305.9	281.3
62.5°	159.0	208.3	293.7	260.6	232.0
65°	143.3	181.1	241.6	196.1	174.7
67.5°	125.1	151.3	189.7	146.7	132.4
70°	110.9	131.3	153.7	120.0	109.8
72.5°	97.5	111.4	124.5	99.2	93.9
75°	75.3	83.5	86.8	74.2	70.1
77.5°	55.4	55.8	60.2	52.2	50.2
80°	42.9	40.8	46.0	39.7	37.7
82.5°	32.8	30.0	33.5	28.8	27.6
85°	20.9	17.8	18.8	16.7	15.7
87.5°	12.3	10.9	11.8	12.0	10.8
90°	7.3	12.6	17.1	22.5	20.4
92.5°	22.8	25.7	29.2	38.2	40.4
95°	54.8	87.7	48.5	52.1	61.6
97.5°	87.1	161.3	322.2	95.9	82.2
100°	112.2	199.1	641.7	190.0	125.5
102.5°	137.4	229.3	866.8	497.3	271.9
105°	175.1	264.0	982.6	1252.3	828.0
107.5°	213.8	279.7	938.3	1822.1	1705.8
110°	239.0	301.5	912.3	1914.6	2056.4



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**CANDELA DISTRIBUTION (continued):**

	0°	22.5°	45°	67.5°	90°
112.5°	265.0	327.4	886.3	1860.5	2099.7
115°	302.9	365.3	847.4	1755.7	2051.0
117.5°	342.7	404.3	837.6	1642.3	1946.0
120°	372.2	430.4	820.3	1556.0	1872.4
122.5°	393.8	455.4	797.8	1481.8	1772.9
125°	430.7	488.9	798.7	1392.2	1645.1
127.5°	461.0	521.1	798.7	1288.0	1538.0
130°	478.3	541.8	803.0	1217.6	1455.7
132.5°	498.3	561.8	801.3	1186.4	1382.1
135°	530.3	588.5	800.9	1145.7	1315.0
137.5°	557.4	619.8	800.9	1100.8	1245.8
140°	579.0	637.3	800.9	1074.5	1206.8
142.5°	600.7	654.7	805.3	1044.0	1167.8
145°	627.8	680.7	806.3	998.1	1104.0
147.5°	660.2	706.8	812.8	965.1	1046.6
150°	681.9	724.2	817.2	943.2	1012.0
152.5°	703.5	741.6	817.2	925.6	981.7
155°	736.0	762.4	822.6	904.7	947.0
157.5°	762.0	787.4	829.1	891.5	922.1
160°	779.3	800.4	833.4	882.7	909.2
162.5°	792.3	813.4	837.7	878.2	896.2
165°	817.2	827.7	844.2	866.2	882.1
167.5°	831.2	840.8	849.6	860.7	870.2
170°	844.2	849.5	849.6	860.6	865.9
172.5°	848.5	858.1	854.0	856.2	861.5
175°	860.5	865.7	860.5	854.9	849.6
177.5°	860.5	864.7	860.5	860.4	856.1
180°	860.5	860.5	860.5	860.5	860.5

(END OF REPORT)