

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: P644972

Luminaire Tested: OMN4DIP-SR4F0-50D50U840-CLBOOB-1DUDD-WW

Issue Date: 2/16/2023



**Test Information**

Test Method: LM-79-2019  
Report Number: P644972  
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-SR4F0-50D50U840-CLBOOB-1DUDD-WW  
Description: NEO-RAY CIRQUE SUSPENDED LED LUMINAIRE  
DOWNLIGHT - BATWING LENS - 500 LUMENS PER FOOT  
UPLIGHT - BATWING OPTIC - 500 LUMENS PER FOOT  
Light Source: 4000K CCT, 80 CRI LEDS  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

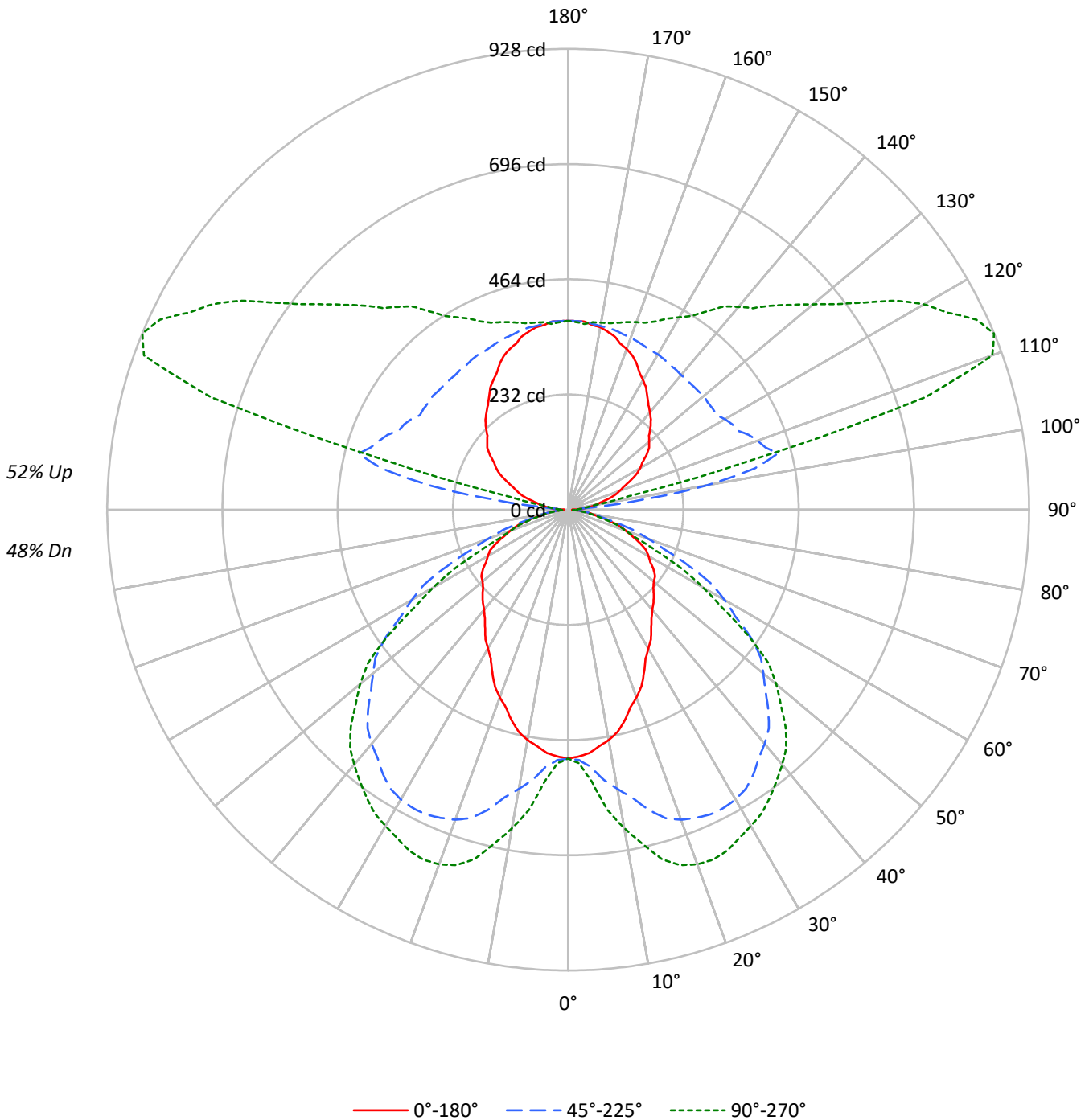
Lumens per Lamp: N/A  
Luminaire Lumens: 3981.4 lumens  
Efficiency: N/A  
Efficacy: 137.8 lumens/watt  
Spacing Criteria (0/90/45): 0.99 / 1.87 / 1.75  
Luminous Opening: Rectangular (W 0.17' x L: 4' x H: 0')  
CIE Type: General Diffuse

Input Watts (W): 28.9  
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	107	107	107	107	98	98	98	98	82	82	82	68	68	68	55	55	55	48						48														
1	98	93	89	86	90	86	83	80	72	70	68	60	58	57	48	47	46	41						41														
2	89	81	75	70	81	75	70	65	63	60	56	53	50	47	43	41	39	34						34														
3	81	71	64	58	74	66	60	54	56	51	47	46	43	40	38	35	33	29						29														
4	74	63	55	49	68	58	51	46	49	44	40	41	37	34	33	31	28	25						25														
5	68	56	48	42	62	52	45	39	44	38	34	37	33	29	30	27	24	21						21														
6	62	50	42	36	57	46	39	34	40	34	30	33	29	25	27	24	21	18						18														
7	57	45	37	31	53	42	35	30	36	30	26	30	26	22	25	21	19	16						16														
8	53	41	33	28	49	38	31	26	32	27	23	27	23	20	22	19	17	14						14														
9	49	37	30	25	45	35	28	23	30	24	20	25	21	18	21	17	15	13						13														
10	46	34	27	22	42	32	25	21	27	22	18	23	19	16	19	16	13	12						12														

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

	0°	45°	90°
0°	8091	8091	8091
5°	7971	8425	8916
10°	7719	9361	10681
15°	7345	10460	12176
20°	6909	11414	13055
25°	6437	12063	13495
30°	6018	12558	13711
35°	5744	12818	13943
40°	5552	12969	14124
45°	5562	13013	14129
50°	5649	12881	13730
55°	5906	12631	12467
60°	6022	11741	10123
65°	6101	10285	7435
70°	5830	8087	5778
75°	5234	6032	4872
80°	4444	4770	3905
85°	4316	3890	3242

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 90°  
 Vertical Angle: 45°  
 Luminance: 14129 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	51.4	1.3
10°-20°	170.8	4.3
20°-30°	283.7	7.1
30°-40°	357.9	9.0
40°-50°	382.6	9.6
50°-60°	337.7	8.5
60°-70°	216.8	5.4
70°-80°	96.1	2.4
80°-90°	25.8	0.6
90°-100°	53.3	1.3
100°-110°	337.3	8.5
110°-120°	455.4	11.4
120°-130°	370.1	9.3
130°-140°	296.2	7.4
140°-150°	233.4	5.9
150°-160°	170.7	4.3
160°-170°	106.0	2.7
170°-180°	36.1	0.9
0°-30°	505.9	12.7
0°-40°	863.9	21.7
0°-60°	1584.2	39.8
0°-90°	1922.9	48.3
90°-120°	846.0	21.2
90°-150°	1745.7	43.8
90°-180°	2059.0	51.7
0°-180°	3981.4	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	501	501	501	501	501	
5°	492	507	520	538	550	46
15°	439	507	626	701	728	123
25°	361	490	677	740	758	166
35°	291	448	650	693	707	183
45°	244	383	570	605	619	188
55°	210	301	449	451	443	186
65°	160	202	269	219	195	156
75°	84	93	97	83	78	90
85°	23	20	21	19	18	25
90°	8	10	12	14	12	6
95°	32	44	25	25	29	31
105°	82	121	436	554	366	87
115°	137	164	376	776	906	137
125°	192	218	355	616	727	171
135°	234	260	354	506	581	181
145°	277	301	356	441	488	174
155°	325	337	364	400	418	149
165°	361	366	373	383	390	101
175°	380	382	380	378	375	36
180°	380	380	380	380	380	

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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	501.1	501.1	501.1	501.1	501.1
2.5°	497.4	504.7	504.9	507.7	511.4
5°	491.8	506.6	519.8	537.5	550.1
7.5°	480.1	506.6	548.7	589.9	610.4
10°	470.8	507.3	571.0	626.4	651.5
12.5°	458.7	507.0	593.4	660.0	688.8
15°	439.4	506.6	625.8	701.0	728.4
17.5°	417.0	504.5	651.2	726.6	750.5
20°	402.1	502.3	664.3	735.9	759.8
22.5°	385.3	497.4	671.7	740.5	762.6
25°	361.3	490.0	677.1	740.4	757.5
27.5°	337.7	479.5	677.3	731.0	745.6
30°	322.8	471.0	673.6	721.7	735.4
32.5°	309.8	461.5	666.1	710.5	725.1
35°	291.4	447.5	650.3	692.6	707.4
37.5°	275.5	431.4	630.2	671.4	688.8
40°	263.4	418.4	615.3	656.4	670.1
42.5°	254.1	404.5	597.6	637.7	649.6
45°	243.6	382.6	569.9	605.2	618.8
47.5°	232.4	360.0	537.9	571.2	580.1
50°	224.9	343.4	512.8	543.2	546.6
52.5°	220.3	326.0	488.5	507.7	508.3
55°	209.8	300.9	448.7	450.8	442.9
57.5°	195.8	271.7	398.1	386.7	367.6
60°	186.5	251.4	363.6	340.8	313.5
62.5°	177.1	232.1	327.2	290.4	258.5
65°	159.7	201.8	269.2	218.6	194.6
67.5°	139.4	168.6	211.4	163.5	147.5
70°	123.5	146.3	171.3	133.8	122.4
72.5°	108.6	124.1	138.7	110.6	104.7
75°	83.9	93.0	96.7	82.6	78.1
77.5°	61.8	62.2	67.1	58.2	55.9
80°	47.8	45.5	51.3	44.2	42.0
82.5°	36.6	33.4	37.3	32.1	30.8
85°	23.3	19.9	21.0	18.6	17.5
87.5°	13.8	11.5	11.7	11.2	9.8
90°	8.2	10.5	11.8	14.1	11.8
92.5°	16.7	16.3	16.6	19.9	19.5
95°	31.9	43.8	25.0	25.1	28.6
97.5°	45.4	76.1	145.0	43.8	37.0
100°	55.9	92.3	285.7	85.4	56.2
102.5°	66.5	105.6	385.1	220.5	120.3
105°	82.3	120.9	436.3	554.0	365.9
107.5°	99.3	127.1	416.7	805.8	753.7
110°	109.8	136.7	405.2	846.7	908.7



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**CANDELA DISTRIBUTION (continued):**

	0°	22.5°	45°	67.5°	90°
112.5°	121.3	148.2	393.7	822.8	927.8
115°	137.3	164.3	376.5	776.5	906.3
117.5°	154.8	181.5	372.2	726.3	859.9
120°	167.3	193.0	364.6	688.2	827.4
122.5°	176.8	203.5	354.1	655.4	783.4
125°	192.4	218.1	355.0	615.8	726.9
127.5°	205.1	232.2	354.3	569.7	679.6
130°	212.8	240.8	356.2	538.0	643.2
132.5°	220.5	248.5	354.4	524.2	610.7
135°	234.3	260.1	353.9	506.2	581.1
137.5°	246.3	273.9	353.9	486.4	550.5
140°	255.9	281.6	353.9	474.8	533.2
142.5°	265.4	289.3	355.8	461.3	516.0
145°	277.4	300.8	356.3	441.0	487.8
147.5°	291.7	312.3	359.2	426.5	462.5
150°	301.3	320.0	361.1	416.8	447.2
152.5°	310.9	327.7	361.1	409.0	433.8
155°	325.2	336.9	363.5	399.8	418.5
157.5°	336.7	347.9	366.3	393.9	407.5
160°	344.3	353.7	368.2	390.0	401.7
162.5°	350.1	359.4	370.2	388.0	396.0
165°	361.1	365.7	373.0	382.8	389.8
167.5°	367.3	371.5	375.4	380.3	384.5
170°	373.0	375.4	375.4	380.3	382.6
172.5°	374.9	379.1	377.3	378.3	380.7
175°	380.2	382.5	380.2	377.8	375.4
177.5°	380.2	382.1	380.2	380.2	378.3
180°	380.2	380.2	380.2	380.2	380.2

(END OF REPORT)