

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: P644953

Luminaire Tested: OMN4DIP-SR4F0-50D25U935-CLBOOB-1DUDD-WW

Issue Date: 2/16/2023



**Test Information**

Test Method: LM-79-2019  
Report Number: P644953  
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-SR4F0-50D25U935-CLBOOB-1DUDD-WW  
Description: NEO-RAY CIRQUE SUSPENDED LED LUMINAIRE  
DOWNLIGHT - BATWING LENS - 500 LUMENS PER FOOT  
UPLIGHT - BATWING OPTIC - 250 LUMENS PER FOOT  
Light Source: 3500K CCT, 90 CRI LEDS  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

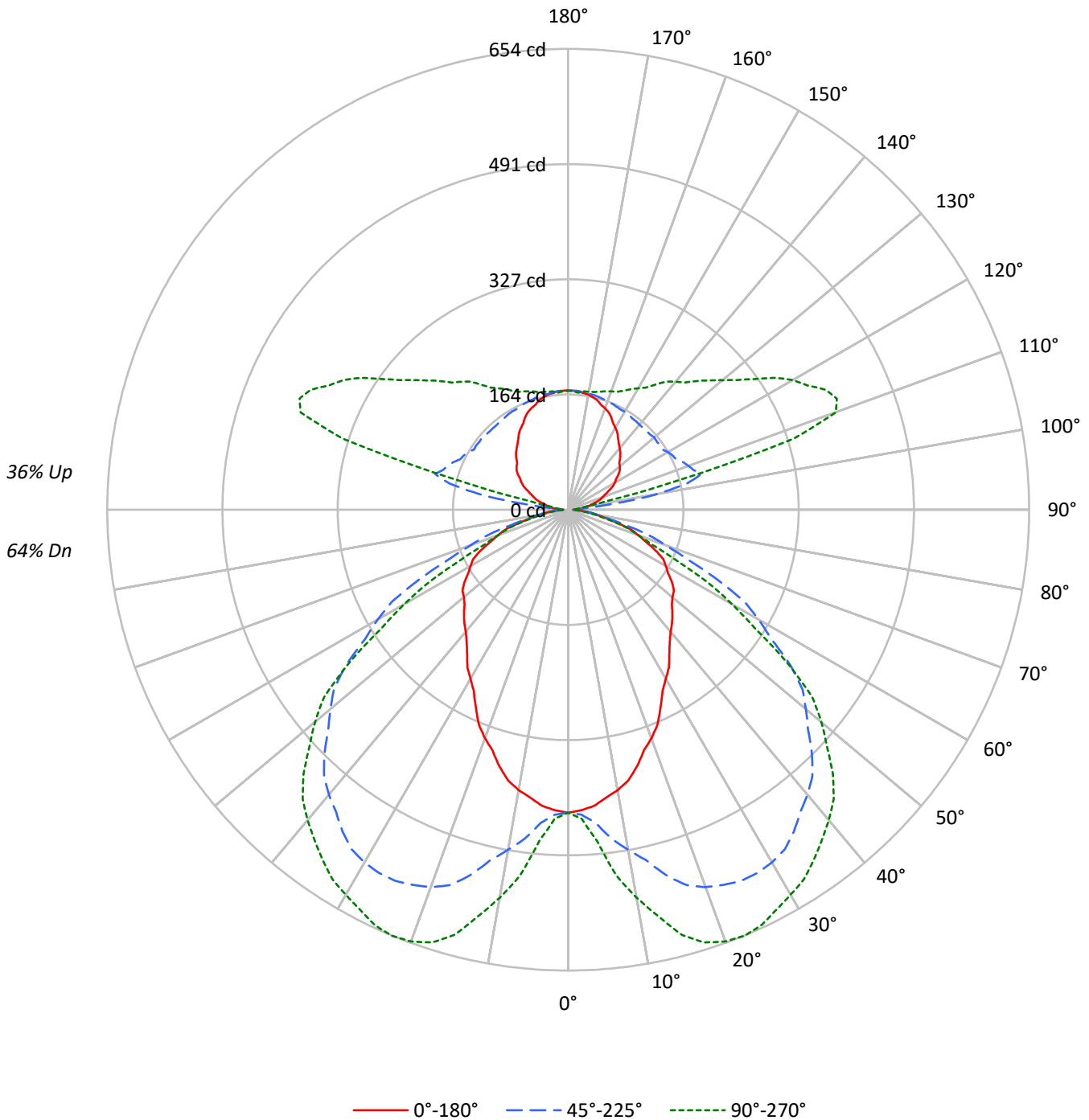
Lumens per Lamp: N/A  
Luminaire Lumens: 2571.6 lumens  
Efficiency: N/A  
Efficacy: 113.8 lumens/watt  
Spacing Criteria (0/90/45): 0.99 / 1.87 / 1.75  
Luminous Opening: Rectangular (W 0.17' x L: 4' x H: 0')  
CIE Type: Semi-Direct

Input Watts (W): 22.6  
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	0
RCR																		
0	111	111	111	111	104	104	104	104	91	91	91	80	80	80	69	69	69	64
1	101	97	93	89	95	91	88	85	80	78	75	70	69	67	61	60	59	54
2	92	84	78	73	86	80	74	69	70	66	62	62	59	56	54	52	49	46
3	84	74	67	61	78	70	63	58	62	57	52	55	50	47	48	45	42	38
4	77	66	57	51	72	62	55	49	55	49	44	48	44	40	42	39	36	33
5	70	58	50	44	66	55	47	42	49	43	38	43	38	35	38	34	31	28
6	65	52	44	38	60	49	42	36	44	38	33	39	34	30	34	30	27	24
7	60	47	39	33	56	45	37	32	40	34	29	35	30	26	31	27	24	21
8	55	43	35	29	52	40	33	28	36	30	26	32	27	23	29	24	21	19
9	52	39	31	26	48	37	30	25	33	27	23	30	25	21	26	22	19	17
10	48	36	28	23	45	34	27	22	30	25	21	27	22	19	24	20	17	15

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

	0°	45°	90°
0°	6943	6943	6943
5°	6840	7229	7650
10°	6624	8034	9165
15°	6302	8976	10447
20°	5928	9794	11203
25°	5523	10350	11580
30°	5164	10776	11764
35°	4928	10998	11964
40°	4763	11129	12119
45°	4772	11166	12125
50°	4848	11052	11781
55°	5067	10838	10697
60°	5167	10075	8686
65°	5234	8825	6380
70°	5004	6939	4957
75°	4492	5178	4180
80°	3812	4091	3347
85°	3705	3335	2779

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 90°

Vertical Angle: 45°

Luminance: 12125 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	44.1	1.7
10°-20°	146.6	5.7
20°-30°	243.5	9.5
30°-40°	307.1	11.9
40°-50°	328.3	12.8
50°-60°	289.8	11.3
60°-70°	186.0	7.2
70°-80°	82.5	3.2
80°-90°	21.8	0.8
90°-100°	26.4	1.0
100°-110°	151.7	5.9
110°-120°	203.8	7.9
120°-130°	165.4	6.4
130°-140°	131.8	5.1
140°-150°	103.8	4.0
150°-160°	75.9	3.0
160°-170°	47.1	1.8
170°-180°	16.1	0.6
0°-30°	434.1	16.9
0°-40°	741.3	28.8
0°-60°	1359.4	52.9
0°-90°	1649.6	64.1
90°-120°	381.9	14.9
90°-150°	782.9	30.4
90°-180°	922.0	35.9
0°-180°	2571.6	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	430	430	430	430	430	
5°	422	435	446	461	472	40
15°	377	435	537	602	625	106
25°	310	420	581	635	650	143
35°	250	384	558	594	607	157
45°	209	328	489	519	531	161
55°	180	258	385	387	380	160
65°	137	173	231	188	167	134
75°	72	80	83	71	67	77
85°	20	17	18	16	15	21
90°	7	8	8	9	7	5
95°	20	23	14	13	14	18
105°	40	57	195	247	163	43
115°	64	75	169	346	403	63
125°	87	98	159	274	323	77
135°	104	116	157	225	258	80
145°	123	134	158	196	217	77
155°	145	150	162	178	186	66
165°	160	163	166	170	173	45
175°	169	170	169	168	167	16
180°	169	169	169	169	169	

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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	430.0	430.0	430.0	430.0	430.0
2.5°	426.8	433.1	433.2	435.7	438.8
5°	422.0	434.7	446.0	461.2	472.0
7.5°	412.0	434.7	470.8	506.2	523.8
10°	404.0	435.3	490.0	537.5	559.0
12.5°	393.6	435.1	509.2	566.4	591.0
15°	377.0	434.7	537.0	601.5	625.0
17.5°	357.8	432.9	558.8	623.5	644.0
20°	345.0	431.0	570.0	631.5	652.0
22.5°	330.6	426.8	576.4	635.4	654.4
25°	310.0	420.5	581.0	635.3	650.0
27.5°	289.8	411.4	581.2	627.3	639.8
30°	277.0	404.1	578.0	619.3	631.0
32.5°	265.8	396.0	571.6	609.7	622.2
35°	250.0	384.0	558.0	594.3	607.0
37.5°	236.4	370.2	540.8	576.1	591.0
40°	226.0	359.0	528.0	563.3	575.0
42.5°	218.0	347.1	512.8	547.2	557.4
45°	209.0	328.3	489.0	519.3	531.0
47.5°	199.4	308.9	461.6	490.2	497.8
50°	193.0	294.7	440.0	466.1	469.0
52.5°	189.0	279.7	419.2	435.6	436.2
55°	180.0	258.2	385.0	386.8	380.0
57.5°	168.0	233.1	341.6	331.8	315.4
60°	160.0	215.7	312.0	292.5	269.0
62.5°	152.0	199.1	280.8	249.2	221.8
65°	137.0	173.2	231.0	187.5	167.0
67.5°	119.6	144.6	181.4	140.3	126.6
70°	106.0	125.6	147.0	114.8	105.0
72.5°	93.2	106.5	119.0	94.9	89.8
75°	72.0	79.8	83.0	70.9	67.0
77.5°	53.0	53.4	57.6	50.0	48.0
80°	41.0	39.0	44.0	38.0	36.0
82.5°	31.4	28.7	32.0	27.6	26.4
85°	20.0	17.1	18.0	16.0	15.0
87.5°	11.8	9.7	9.6	9.0	7.8
90°	7.0	8.0	8.1	9.1	7.2
92.5°	12.0	10.6	9.9	11.0	9.8
95°	19.5	22.9	13.5	12.6	13.7
97.5°	24.9	37.1	66.3	20.4	16.9
100°	29.2	43.9	128.5	38.9	25.5
102.5°	33.5	49.9	172.7	98.6	53.6
105°	40.0	56.7	195.4	246.8	162.7
107.5°	47.4	59.0	186.7	358.8	335.1
110°	51.7	63.2	181.6	376.9	404.0

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**CANDELA DISTRIBUTION (continued):**

	0°	22.5°	45°	67.5°	90°
112.5°	56.8	68.3	176.5	366.3	412.5
115°	63.5	75.0	168.9	345.7	402.9
117.5°	71.1	82.6	166.9	323.4	382.3
120°	76.3	87.7	163.5	306.5	367.9
122.5°	80.5	92.0	158.5	291.9	348.3
125°	87.0	98.4	159.3	274.3	323.2
127.5°	92.2	104.6	158.5	253.7	302.2
130°	95.6	108.0	159.4	239.2	286.0
132.5°	98.2	110.7	157.8	233.1	271.5
135°	104.2	115.6	157.4	225.1	258.4
137.5°	109.5	121.8	157.4	216.3	244.7
140°	113.8	125.2	157.4	211.1	237.1
142.5°	118.0	128.6	158.2	205.1	229.4
145°	123.3	133.7	158.4	196.1	216.9
147.5°	129.7	138.9	159.7	189.6	205.6
150°	134.0	142.3	160.5	185.3	198.8
152.5°	138.2	145.7	160.5	181.8	192.9
155°	144.6	149.8	161.6	177.7	186.1
157.5°	149.7	154.7	162.9	175.1	181.2
160°	153.1	157.3	163.7	173.4	178.6
162.5°	155.7	159.8	164.6	172.5	176.1
165°	160.5	162.6	165.9	170.2	173.3
167.5°	163.3	165.2	166.9	169.1	171.0
170°	165.9	166.9	166.9	169.1	170.1
172.5°	166.7	168.6	167.8	168.2	169.3
175°	169.0	170.1	169.0	168.0	166.9
177.5°	169.0	169.9	169.0	169.0	168.2
180°	169.0	169.0	169.0	169.0	169.0

(END OF REPORT)