

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: P645013

Luminaire Tested: OMN4DIP-SR4F0-50D75U935-CLBOOB-1DUDD-WW

Issue Date: 2/16/2023



**Test Information**

Test Method: LM-79-2019  
Report Number: P645013  
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-SR4F0-50D75U935-CLBOOB-1DUDD-WW  
Description: NEO-RAY CIRQUE SUSPENDED LED LUMINAIRE  
DOWNLIGHT - BATWING LENS - 500 LUMENS PER FOOT  
UPLIGHT - BATWING OPTIC - 750 LUMENS PER FOOT  
Light Source: 3500K CCT, 90 CRI LEDS  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

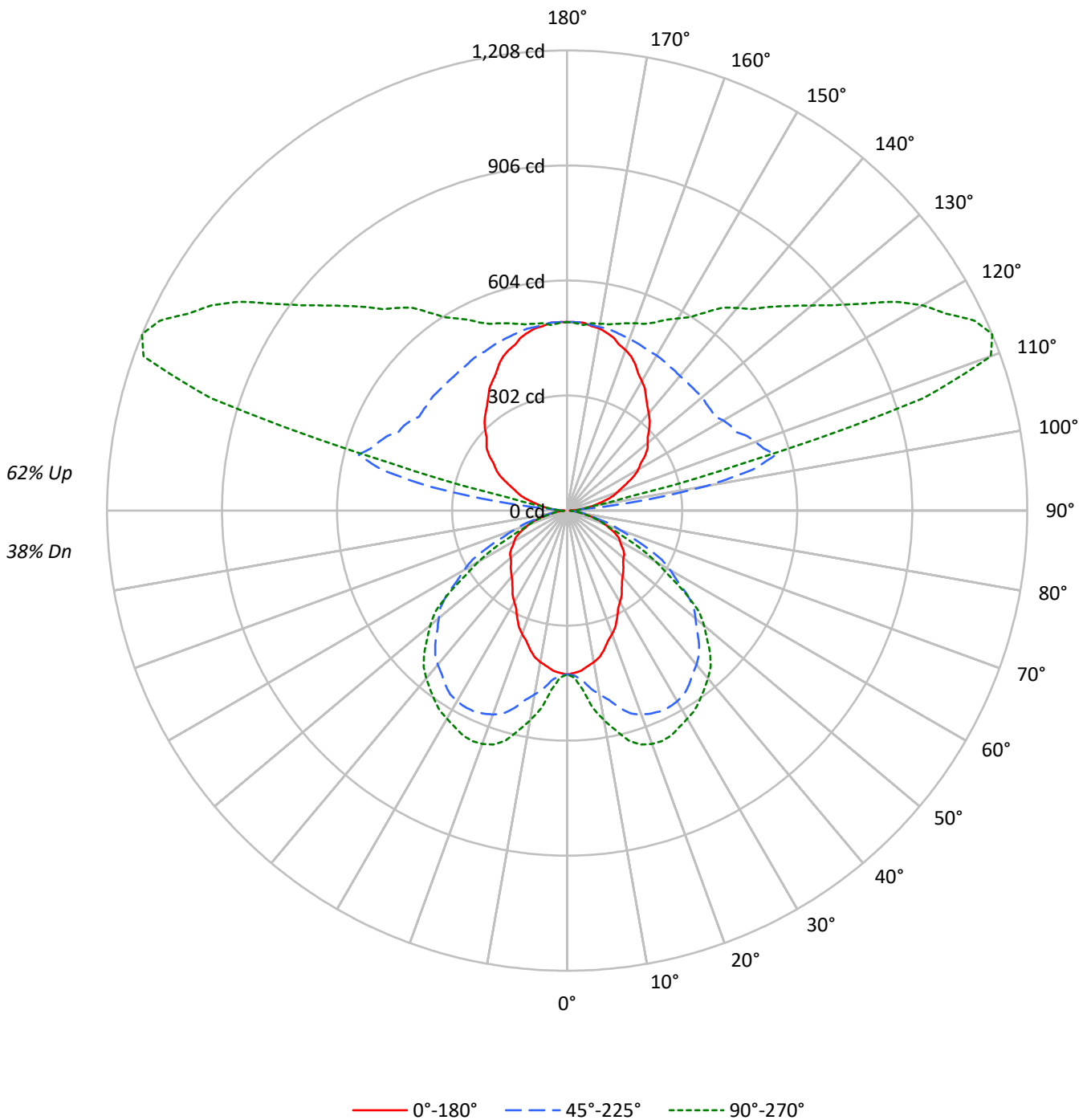
Lumens per Lamp: N/A  
Luminaire Lumens: 4323.7 lumens  
Efficiency: N/A  
Efficacy: 123.2 lumens/watt  
Spacing Criteria (0/90/45): 0.99 / 1.87 / 1.75  
Luminous Opening: Rectangular (W 0.17' x L: 4' x H: 0')  
CIE Type: Semi-Indirect

Input Watts (W): 35.1  
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	104	104	104	104	95	95	95	95	77	77	77		60	60	60		45	45	45	38
1	95	91	87	84	86	83	80	77	67	65	63		53	52	50		40	39	38	32
2	87	79	73	68	78	72	67	63	59	55	52		47	44	42		35	34	32	27
3	79	70	63	57	71	64	57	52	52	47	44		41	38	35		31	29	27	23
4	72	62	54	48	65	56	49	44	46	41	37		37	33	30		28	25	23	19
5	66	55	47	41	60	50	43	38	41	36	32		33	29	26		25	22	20	17
6	61	49	41	35	55	45	38	33	37	31	27		29	25	23		22	20	18	15
7	56	44	36	31	51	40	33	28	33	28	24		27	23	20		20	18	16	13
8	52	40	32	27	47	36	30	25	30	25	21		24	20	17		19	16	14	11
9	48	36	29	24	44	33	26	22	27	22	19		22	18	16		17	14	12	10
10	45	33	26	21	41	30	24	20	25	20	17		20	17	14		16	13	11	9

**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	1.0
10°-20°	146.6	3.4
20°-30°	243.5	5.6
30°-40°	307.1	7.1
40°-50°	328.3	7.6
50°-60°	289.8	6.7
60°-70°	186.0	4.3
70°-80°	82.5	1.9
80°-90°	22.5	0.5
90°-100°	66.5	1.5
100°-110°	437.4	10.1
110°-120°	591.6	13.7
120°-130°	481.0	11.1
130°-140°	385.7	8.9
140°-150°	303.9	7.0
150°-160°	222.2	5.1
160°-170°	138.0	3.2
170°-180°	47.1	1.1
0°-30°	434.1	10.0
0°-40°	741.3	17.1
0°-60°	1359.4	31.4
0°-90°	1650.4	38.2
90°-120°	1095.5	25.3
90°-150°	2266.0	52.4
90°-180°	2673.0	61.8
0°-180°	4323.7	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	10	12	15	13	6
95°	36	53	30	31	36	36
105°	104	154	567	721	476	110
115°	176	212	489	1011	1180	175
125°	249	282	461	801	947	221
135°	305	339	461	659	757	235
145°	361	392	464	574	635	227
155°	424	439	473	521	545	194
165°	470	476	486	498	508	132
175°	495	498	495	492	489	47
180°	495	495	495	495	495	



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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	10.1	10.4	10.2	9.1
90°	7.0	10.0	12.2	15.3	13.3
92.5°	16.9	17.6	18.9	23.7	24.2
95°	35.9	53.3	29.9	31.1	36.3
97.5°	54.0	95.5	186.9	56.0	47.7
100°	68.2	117.0	370.4	110.1	72.6
102.5°	82.3	134.4	500.0	286.6	156.5
105°	103.5	154.3	566.6	721.0	476.4
107.5°	125.7	163.0	541.1	1048.8	981.5
110°	139.9	175.5	526.1	1102.0	1183.2



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**CANDELA DISTRIBUTION (continued):**

	0°	22.5°	45°	67.5°	90°
112.5°	154.8	190.4	511.2	1070.9	1208.1
115°	176.3	211.8	488.8	1010.6	1180.1
117.5°	199.1	234.2	483.1	945.3	1119.7
120°	215.7	249.2	473.2	895.7	1077.4
122.5°	228.2	263.3	459.9	853.0	1020.1
125°	249.0	282.5	460.7	801.4	946.6
127.5°	266.0	300.9	460.3	741.4	884.9
130°	276.0	312.5	462.8	700.6	837.6
132.5°	286.9	323.4	461.2	682.6	795.3
135°	305.2	338.6	460.8	659.2	756.7
137.5°	320.7	356.6	460.8	633.4	716.8
140°	333.2	366.7	460.8	618.3	694.4
142.5°	345.6	376.7	463.3	600.7	672.0
145°	361.2	391.6	464.0	574.3	635.2
147.5°	379.9	406.7	467.7	555.3	602.2
150°	392.3	416.7	470.2	542.7	582.3
152.5°	404.8	426.7	470.2	532.6	564.8
155°	423.5	438.7	473.3	520.6	544.9
157.5°	438.4	453.0	477.0	512.9	530.6
160°	448.4	460.6	479.5	507.9	523.1
162.5°	455.9	468.0	482.0	505.3	515.6
165°	470.2	476.3	485.8	498.4	507.5
167.5°	478.3	483.8	488.9	495.2	500.7
170°	485.8	488.8	488.9	495.2	498.2
172.5°	488.2	493.7	491.4	492.7	495.7
175°	495.1	498.1	495.1	491.9	488.9
177.5°	495.1	497.5	495.1	495.0	492.6
180°	495.1	495.1	495.1	495.1	495.1

(END OF REPORT)