

Signify Classified - Internal  
Cooper Lighting Solutions Photometric Lab  
1121 Highway 74 South  
Peachtree City, GA 30269



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: P644947

Luminaire Tested: OMN4DIP-SR4F0-50D25U930-CLBOOB-1DUDD-WW

Issue Date: 2/16/2023



**Test Information**

Test Method: LM-79-2019  
Report Number: P644947  
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-SR4F0-50D25U930-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: 3000K CCT, 90 CRI LEDS  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

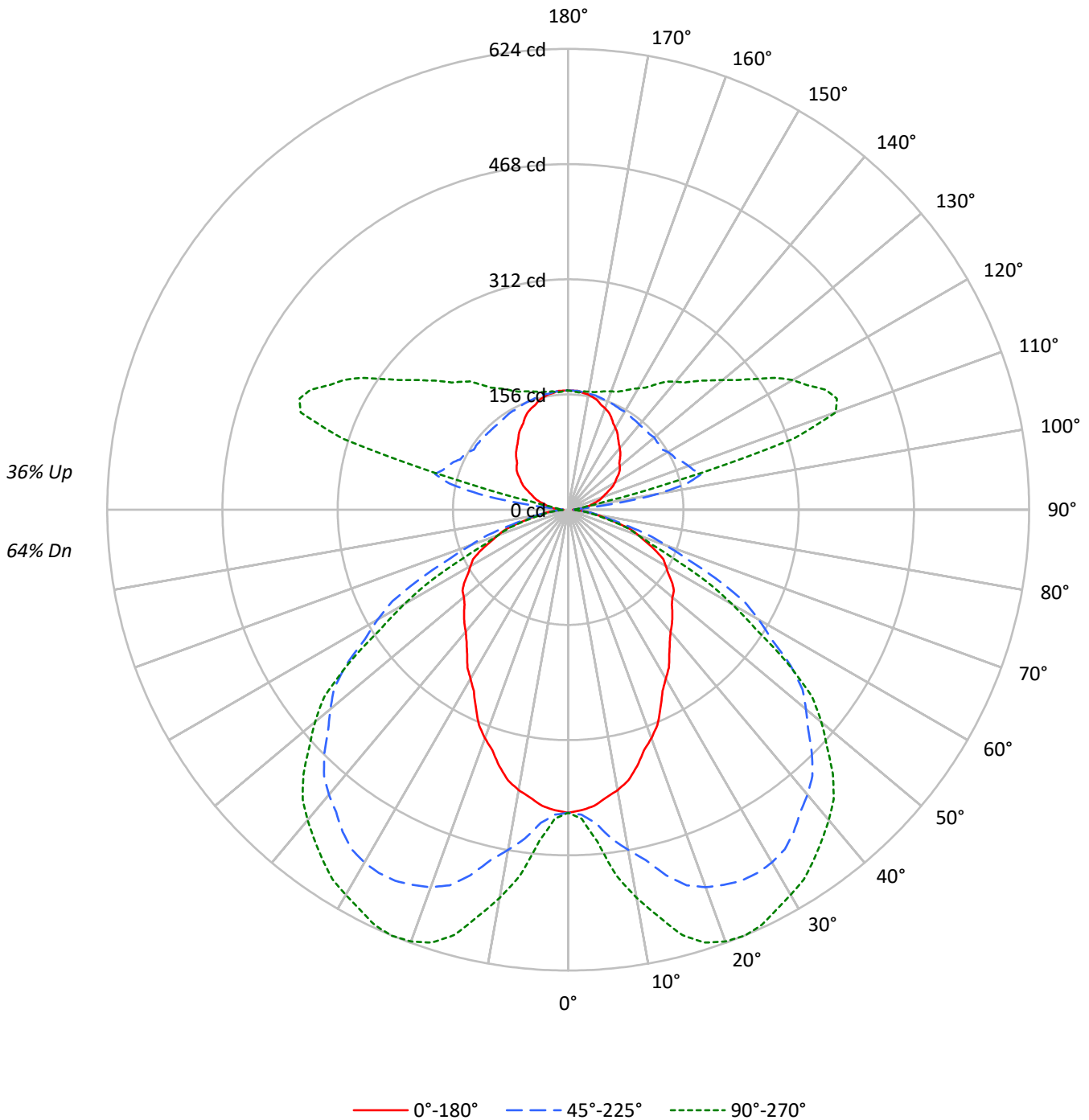
Lumens per Lamp: N/A  
Luminaire Lumens: 2453.8 lumens  
Efficiency: N/A  
Efficacy: 108.6 lumens/watt  
Spacing Criteria (0/90/45): 0.99 / 1.87 / 1.75  
Luminous Opening: Rectangular (W 0.17' x L: 4' x H: 0')  
CIE Type: Semi-Direct

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	85	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°	6625	6625	6625
5°	6527	6898	7300
10°	6320	7666	8745
15°	6013	8565	9969
20°	5656	9345	10689
25°	5270	9877	11049
30°	4928	10282	11225
35°	4703	10494	11416
40°	4546	10619	11565
45°	4553	10654	11570
50°	4627	10547	11241
55°	4836	10342	10207
60°	4931	9613	8289
65°	4993	8420	6090
70°	4773	6623	4730
75°	4286	4941	3986
80°	3636	3905	3199
85°	3538	3186	2649

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 90°  
 Vertical Angle: 45°  
 Luminance: 11570 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	42.1	1.7
10°-20°	139.8	5.7
20°-30°	232.3	9.5
30°-40°	293.1	11.9
40°-50°	313.3	12.8
50°-60°	276.5	11.3
60°-70°	177.5	7.2
70°-80°	78.7	3.2
80°-90°	20.8	0.8
90°-100°	25.2	1.0
100°-110°	144.8	5.9
110°-120°	194.5	7.9
120°-130°	157.8	6.4
130°-140°	125.8	5.1
140°-150°	99.0	4.0
150°-160°	72.4	3.0
160°-170°	45.0	1.8
170°-180°	15.3	0.6
0°-30°	414.2	16.9
0°-40°	707.3	28.8
0°-60°	1297.2	52.9
0°-90°	1574.1	64.1
90°-120°	364.4	14.9
90°-150°	747.0	30.4
90°-180°	880.0	35.9
0°-180°	2453.8	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	410	410	410	410	410	
5°	403	415	426	440	450	38
15°	360	415	512	574	596	101
25°	296	401	554	606	620	136
35°	239	366	532	567	579	150
45°	199	313	467	496	507	154
55°	172	246	367	369	363	152
65°	131	165	220	179	159	128
75°	69	76	79	68	64	73
85°	19	16	17	15	14	20
90°	7	8	8	9	7	5
95°	19	22	13	12	13	17
105°	38	54	186	236	155	41
115°	61	72	161	330	384	60
125°	83	94	152	262	308	74
135°	99	110	150	215	246	77
145°	118	128	151	187	207	74
155°	138	143	154	170	178	63
165°	153	155	158	162	165	43
175°	161	162	161	160	159	15
180°	161	161	161	161	161	

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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	410.3	410.3	410.3	410.3	410.3
2.5°	407.3	413.2	413.4	415.7	418.7
5°	402.7	414.8	425.6	440.1	450.4
7.5°	393.1	414.8	449.2	483.0	499.8
10°	385.5	415.4	467.6	512.9	533.4
12.5°	375.6	415.1	485.9	540.4	563.9
15°	359.7	414.8	512.4	574.0	596.4
17.5°	341.4	413.1	533.2	594.9	614.5
20°	329.2	411.3	543.9	602.6	622.1
22.5°	315.5	407.3	550.0	606.3	624.4
25°	295.8	401.2	554.4	606.2	620.2
27.5°	276.5	392.6	554.6	598.6	610.5
30°	264.3	385.6	551.5	590.9	602.1
32.5°	253.6	377.9	545.4	581.8	593.7
35°	238.6	366.4	532.4	567.1	579.2
37.5°	225.6	353.2	516.0	549.8	563.9
40°	215.7	342.5	503.8	537.5	548.7
42.5°	208.0	331.2	489.3	522.2	531.9
45°	199.4	313.3	466.6	495.5	506.7
47.5°	190.3	294.8	440.5	467.7	475.0
50°	184.2	281.2	419.9	444.7	447.5
52.5°	180.3	266.9	400.0	415.7	416.2
55°	171.8	246.4	367.4	369.1	362.6
57.5°	160.3	222.4	326.0	316.6	301.0
60°	152.7	205.9	297.7	279.1	256.7
62.5°	145.0	190.0	267.9	237.8	211.6
65°	130.7	165.2	220.4	178.9	159.4
67.5°	114.1	138.0	173.1	133.9	120.8
70°	101.1	119.8	140.3	109.5	100.2
72.5°	88.9	101.6	113.6	90.5	85.7
75°	68.7	76.2	79.2	67.7	63.9
77.5°	50.6	50.9	55.0	47.7	45.8
80°	39.1	37.3	42.0	36.2	34.4
82.5°	30.0	27.3	30.5	26.3	25.2
85°	19.1	16.3	17.2	15.2	14.3
87.5°	11.3	9.2	9.2	8.6	7.5
90°	6.7	7.7	7.8	8.7	6.9
92.5°	11.4	10.2	9.4	10.5	9.4
95°	18.6	21.8	12.9	12.0	13.1
97.5°	23.8	35.4	63.3	19.5	16.2
100°	27.9	41.9	122.6	37.1	24.3
102.5°	32.0	47.6	164.8	94.1	51.1
105°	38.1	54.1	186.5	235.5	155.2
107.5°	45.2	56.3	178.2	342.3	319.8
110°	49.3	60.3	173.3	359.7	385.5



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**CANDELA DISTRIBUTION (continued):**

	0°	22.5°	45°	67.5°	90°
112.5°	54.2	65.2	168.4	349.5	393.6
115°	60.6	71.5	161.1	329.9	384.5
117.5°	67.9	78.8	159.3	308.6	364.8
120°	72.8	83.7	156.1	292.4	351.0
122.5°	76.9	87.8	151.2	278.5	332.3
125°	83.0	93.9	152.0	261.7	308.4
127.5°	87.9	99.8	151.2	242.0	288.3
130°	91.2	103.1	152.1	228.3	272.9
132.5°	93.7	105.6	150.5	222.4	259.1
135°	99.4	110.3	150.1	214.8	246.5
137.5°	104.5	116.2	150.1	206.4	233.5
140°	108.6	119.5	150.1	201.4	226.2
142.5°	112.6	122.7	151.0	195.7	218.9
145°	117.7	127.6	151.2	187.1	207.0
147.5°	123.8	132.5	152.4	180.9	196.2
150°	127.8	135.8	153.2	176.8	189.7
152.5°	131.9	139.0	153.2	173.5	184.0
155°	138.0	142.9	154.2	169.6	177.5
157.5°	142.8	147.6	155.4	167.1	172.9
160°	146.1	150.1	156.2	165.5	170.4
162.5°	148.5	152.5	157.0	164.6	168.0
165°	153.2	155.2	158.3	162.4	165.4
167.5°	155.8	157.6	159.3	161.3	163.1
170°	158.3	159.3	159.3	161.3	162.3
172.5°	159.1	160.9	160.1	160.5	161.5
175°	161.3	162.3	161.3	160.3	159.3
177.5°	161.3	162.1	161.3	161.3	160.5
180°	161.3	161.3	161.3	161.3	161.3

(END OF REPORT)