

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: P644955

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

Issue Date: 2/16/2023



**Test Information**

Test Method: LM-79-2019  
Report Number: P644955  
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2203-563-26, G2-2206-689-19)  
Test Lab: INNOVATION CENTER  
Issue Date: 2/16/2023  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: NEO-RAY  
Catalog Number: OMN4DIP-SR4F0-50D25U935-FLLOOB-1DUDD-WW  
Description: NEO-RAY CIRQUE SUSPENDED LED LUMINAIRE  
DOWNLIGHT - FLAT FROSTED LENS - 500 LUMENS PER FOOT  
UPLIGHT - BATWING OPTIC - 250 LUMENS PER FOOT  
Light Source: 3500K CCT, 90 CRI LEDS  
Ballast/Driver: ELECTRONIC DRIVER

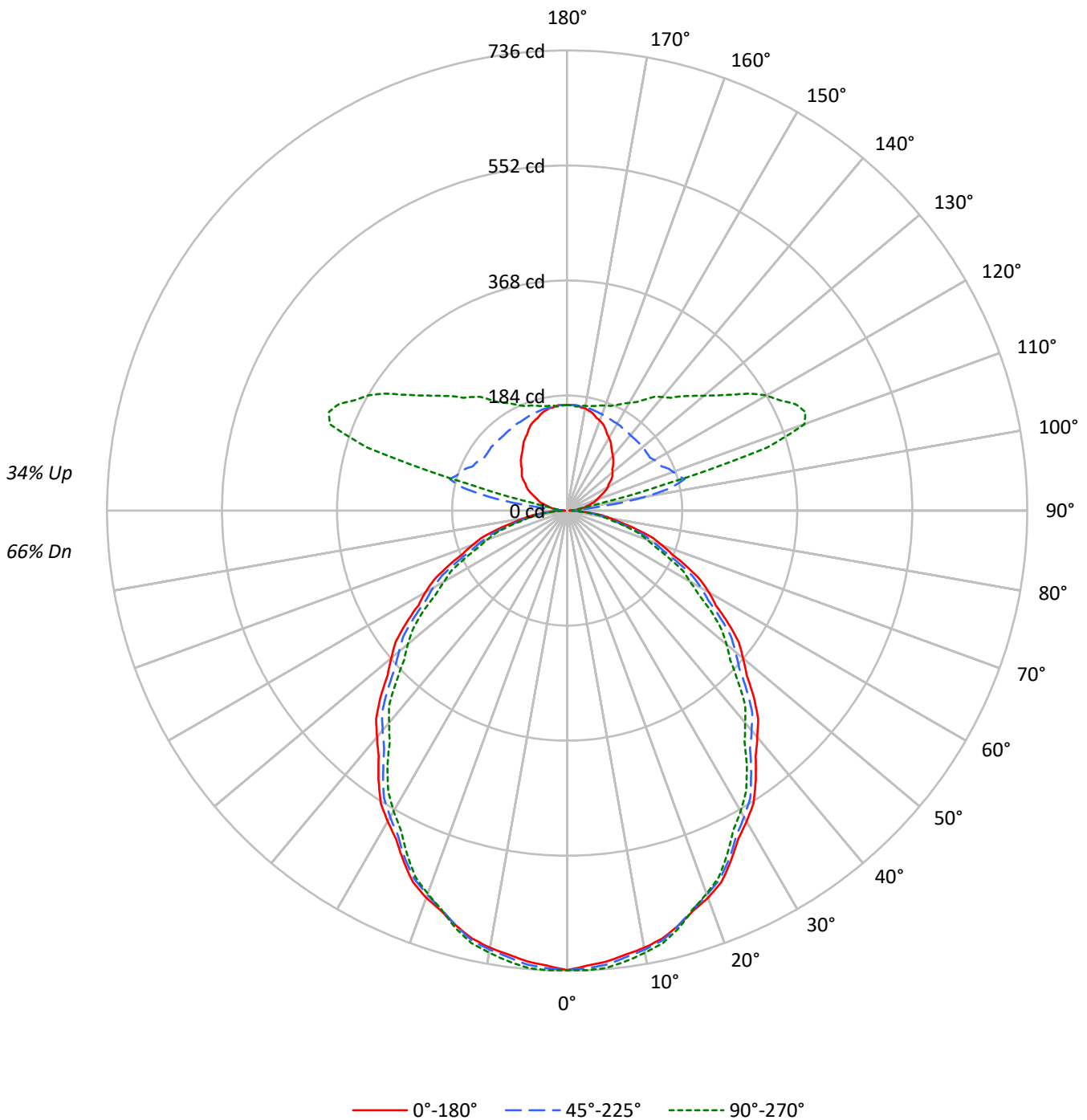
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 2701.3 lumens  
Efficiency: N/A  
Efficacy: 119.5 lumens/watt  
Spacing Criteria (0/90/45): 1.17 / 1.13 / 1.26  
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 (A<sub>in</sub>): 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	92	92	92	81	81	81	71	71	71	66
1	101	97	93	89	95	91	88	85	81	78	76	72	70	68	63	61	60	56
2	93	85	79	73	87	80	75	70	71	67	63	63	60	57	55	53	51	47
3	85	75	67	61	79	71	64	59	63	58	53	56	52	48	49	46	43	40
4	77	66	58	52	73	63	56	50	56	50	46	50	45	42	44	41	38	34
5	71	59	51	45	67	56	49	43	50	44	40	45	40	36	40	36	33	30
6	66	53	45	39	62	51	43	38	46	39	35	41	36	32	36	32	29	26
7	61	48	40	35	57	46	39	33	41	35	31	37	32	28	33	29	26	23
8	57	44	36	31	53	42	35	30	38	32	27	34	29	25	31	26	23	21
9	53	40	33	28	50	38	31	27	35	29	25	31	26	23	28	24	21	19
10	49	37	30	25	47	35	29	24	32	26	22	29	24	21	26	22	19	17

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

	0°	45°	90°
0°	11867	11867	11867
5°	11734	11815	11896
10°	11640	11690	11772
15°	11483	11483	11550
20°	11323	11237	11203
25°	11027	10938	10796
30°	10701	10552	10347
35°	10368	10111	9875
40°	9969	9674	9337
45°	9636	9270	8814
50°	9218	8817	8364
55°	8867	8417	7910
60°	8460	8008	7330
65°	8023	7450	6877
70°	7600	6892	6420
75°	7112	6301	5989
80°	6509	5765	5486
85°	6113	5372	5002

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 0°  
 Vertical Angle: 45°  
 Luminance: 9636 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	69.1	2.6
10°-20°	194.0	7.2
20°-30°	282.1	10.4
30°-40°	320.9	11.9
40°-50°	312.9	11.6
50°-60°	267.1	9.9
60°-70°	194.1	7.2
70°-80°	109.8	4.1
80°-90°	34.2	1.3
90°-100°	25.0	0.9
100°-110°	150.5	5.6
110°-120°	202.5	7.5
120°-130°	164.5	6.1
130°-140°	131.7	4.9
140°-150°	103.8	3.8
150°-160°	75.9	2.8
160°-170°	47.1	1.7
170°-180°	16.1	0.6
0°-30°	545.3	20.2
0°-40°	866.2	32.1
0°-60°	1446.2	53.5
0°-90°	1784.2	66.0
90°-120°	378.0	14.0
90°-150°	778.0	28.8
90°-180°	917.0	33.9
0°-180°	2701.3	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	735	735	735	735	735	
5°	724	735	729	728	734	69
15°	687	696	687	686	691	194
25°	619	625	614	603	606	285
35°	526	528	513	501	501	328
45°	422	420	406	392	386	325
55°	315	314	299	285	281	281
65°	210	208	195	183	180	208
75°	114	110	101	97	96	121
85°	33	29	29	28	27	35
90°	4	6	8	8	8	4
95°	16	20	12	13	14	16
105°	38	54	194	247	163	40
115°	62	73	167	345	403	61
125°	86	97	157	273	323	76
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°	735.0	735.0	735.0	735.0	735.0
2.5°	728.6	738.0	732.6	732.7	735.8
5°	724.0	734.8	729.0	728.1	734.0
7.5°	716.4	727.0	720.2	719.2	726.8
10°	710.0	719.8	713.0	711.2	718.0
12.5°	701.2	711.0	704.2	701.6	708.4
15°	687.0	695.8	687.0	686.1	691.0
17.5°	671.0	678.6	668.4	665.1	668.8
20°	659.0	665.8	654.0	649.1	652.0
22.5°	643.8	650.6	638.0	630.7	634.4
25°	619.0	624.9	614.0	603.1	606.0
27.5°	592.4	596.9	586.0	574.8	575.8
30°	574.0	576.9	566.0	554.0	555.0
32.5°	554.8	557.0	545.2	532.4	532.6
35°	526.0	528.0	513.0	501.0	501.0
37.5°	495.4	496.6	480.6	467.6	466.2
40°	473.0	475.0	459.0	445.9	443.0
42.5°	452.2	452.6	438.2	425.1	421.4
45°	422.0	420.0	406.0	391.9	386.0
47.5°	389.4	389.4	373.4	359.3	353.8
50°	367.0	367.0	351.0	336.9	333.0
52.5°	346.2	345.4	330.2	316.1	310.6
55°	315.0	314.0	299.0	284.9	281.0
57.5°	282.0	282.0	268.0	252.9	248.6
60°	262.0	262.0	248.0	232.9	227.0
62.5°	240.4	239.6	225.6	212.1	208.6
65°	210.0	208.0	195.0	182.9	180.0
67.5°	181.0	179.0	165.2	155.6	153.6
70°	161.0	159.0	146.0	138.0	136.0
72.5°	141.8	139.1	127.6	121.2	119.2
75°	114.0	110.1	101.0	97.0	96.0
77.5°	87.6	81.0	77.2	74.4	73.4
80°	70.0	64.1	62.0	60.0	59.0
82.5°	54.8	48.9	48.4	47.2	46.2
85°	33.0	29.1	29.0	28.0	27.0
87.5°	14.4	12.5	12.8	12.8	12.8
90°	4.0	6.0	8.1	8.2	8.2
92.5°	9.8	8.6	9.1	10.8	10.8
95°	16.5	19.9	11.5	12.6	13.7
97.5°	22.1	34.3	65.3	20.2	16.9
100°	27.2	41.9	127.5	37.9	25.5
102.5°	31.5	47.1	171.7	98.4	53.6
105°	38.0	53.7	194.4	246.8	162.7
107.5°	45.4	57.0	185.7	358.8	335.1
110°	49.7	61.2	180.6	376.9	404.0

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**CANDELA DISTRIBUTION (continued):**

	0°	22.5°	45°	67.5°	90°
112.5°	54.8	66.3	175.5	366.3	412.5
115°	61.5	73.0	166.9	344.7	402.9
117.5°	69.3	80.6	164.9	322.4	382.3
120°	75.3	85.8	161.5	305.5	367.9
122.5°	78.7	90.8	157.3	290.9	348.3
125°	86.0	97.4	157.3	273.3	323.2
127.5°	91.2	103.6	157.5	252.9	302.2
130°	94.6	107.0	158.4	239.2	286.0
132.5°	98.0	110.5	157.6	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)