

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: P644585

Luminaire Tested: OMN4DIP-SR4F0-100D25U930-BBMOOB-1DUDD-WW

Issue Date: 9/2/2020



**Test Information**

Test Method: LM-79-2019  
Report Number: P644585  
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2203-563-26, G2-2206-689-23)  
Test Lab: INNOVATION CENTER  
Issue Date: 9/2/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: NEO-RAY  
Catalog Number: OMN4DIP-SR4F0-100D25U930-BBMOOB-1DUDD-WW  
Description: NEO-RAY CIRQUE 4-INCH DIAMETER LINEAR LED LUMINAIRE  
DOWNLIGHT - BLACK BAFFLE WITH MEDIUM OPTIC - 1000 LUMENS PER FOOT  
UPLIGHT - BATWING OPTIC - 250 LUMENS PER FOOT  
Light Source: 3000K CCT, 90 CRI LEDS  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

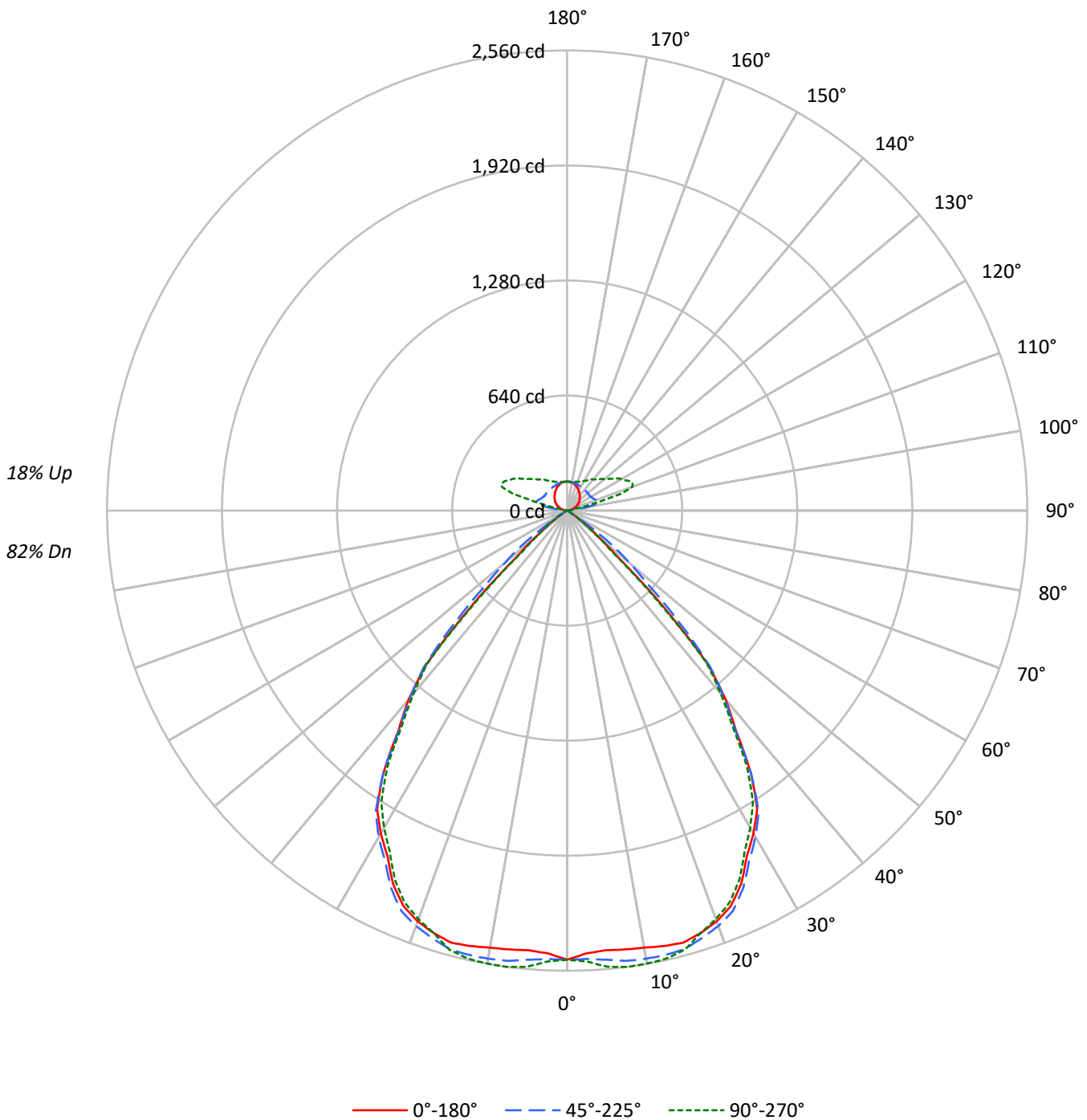
Lumens per Lamp: N/A  
Luminaire Lumens: 4705.9 lumens  
Efficiency: N/A  
Efficacy: 101.4 lumens/watt  
Spacing Criteria (0/90/45): 1.22 / 1.21 / 1.18  
Luminous Opening: Rectangular (W 0.21' x L: 4' x H: 0')  
CIE Type: Semi-Direct

Input Watts (W): 46.4  
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	115	115	115	115	110	110	110	110	101	101	101	93	93	93	85	85	85	82
1	108	105	102	99	104	101	98	96	93	91	90	86	85	84	80	79	78	75
2	101	96	91	87	97	92	88	84	86	83	80	80	78	75	75	73	71	68
3	95	87	81	77	91	84	79	75	79	75	71	74	71	68	70	67	65	62
4	89	80	73	68	85	77	72	67	73	68	64	69	65	62	65	61	59	57
5	83	73	66	61	80	71	65	60	67	62	58	63	59	56	60	56	54	52
6	78	67	60	55	75	65	59	54	62	57	53	59	54	51	56	52	49	47
7	73	62	55	50	70	60	54	49	57	52	48	55	50	46	52	48	45	43
8	68	57	51	46	66	56	50	45	53	48	44	51	46	43	48	44	41	40
9	64	53	46	42	62	52	46	41	50	44	40	47	43	39	45	41	38	36
10	61	50	43	39	59	48	42	38	46	41	37	44	40	36	42	38	35	34

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

	0°	45°	90°
0°	32270	32270	32270
5°	31837	32520	33026
10°	32385	33203	33561
15°	33278	33773	33825
20°	33430	33805	33243
25°	32660	33021	32298
30°	30922	31271	30368
35°	28109	28109	27524
40°	23119	22888	22394
45°	13823	16245	13181
50°	4467	9053	4194
55°	1581	3031	1581
60°	101	858	52
65°	61	61	0
70°	76	0	0
75°	0	0	0
80°	0	0	0
85°	296	0	0

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 45°

Vertical Angle: 45°

Luminance: 16245 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	240.3	5.1
10°-20°	711.2	15.1
20°-30°	1052.5	22.4
30°-40°	1087.9	23.1
40°-50°	633.0	13.5
50°-60°	107.2	2.3
60°-70°	4.2	0.1
70°-80°	0.6	0.0
80°-90°	0.9	0.0
90°-100°	19.9	0.4
100°-110°	141.6	3.0
110°-120°	192.2	4.1
120°-130°	156.4	3.3
130°-140°	125.8	2.7
140°-150°	99.2	2.1
150°-160°	72.5	1.5
160°-170°	45.0	1.0
170°-180°	15.4	0.3
0°-30°	2004.0	42.6
0°-40°	3091.9	65.7
0°-60°	3832.1	81.4
0°-90°	3837.9	81.6
90°-120°	353.6	7.5
90°-150°	735.0	15.6
90°-180°	868.0	18.4
0°-180°	4705.9	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	2498	2498	2498	2498	2498	
5°	2455	2520	2508	2515	2547	235
15°	2489	2576	2526	2512	2530	700
25°	2292	2368	2317	2247	2266	1047
35°	1783	1811	1783	1738	1746	1092
45°	757	881	889	859	722	585
55°	70	82	135	76	70	77
65°	2	2	2	0	0	2
75°	0	2	0	0	0	1
85°	2	2	0	0	0	1
90°	0	1	2	3	3	1
95°	8	15	8	9	11	9
105°	32	48	184	235	156	33
115°	56	68	158	330	385	55
125°	80	91	149	261	309	71
135°	100	110	150	215	247	77
145°	118	128	151	187	207	74
155°	138	143	154	170	178	63
165°	154	155	158	163	166	43
175°	162	163	162	160	160	15
180°	162	162	162	162	162	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	2498.3	2498.3	2498.3	2498.3	2498.3
2.5°	2465.6	2514.4	2496.8	2498.6	2510.8
5°	2455.4	2520.2	2508.1	2514.7	2547.1
7.5°	2462.8	2528.4	2526.8	2528.7	2560.3
10°	2469.1	2537.7	2531.5	2530.2	2558.8
12.5°	2481.5	2556.3	2531.5	2528.5	2552.5
15°	2488.6	2576.3	2525.6	2512.4	2529.5
17.5°	2464.8	2562.4	2493.6	2458.3	2465.2
20°	2432.0	2531.2	2459.3	2406.9	2418.4
22.5°	2380.5	2475.1	2410.9	2346.1	2360.6
25°	2291.6	2367.9	2316.9	2247.2	2266.2
27.5°	2165.2	2225.5	2193.3	2125.7	2137.5
30°	2073.2	2122.7	2096.6	2030.4	2036.1
32.5°	1967.1	2009.0	1981.1	1924.1	1923.8
35°	1782.6	1811.2	1782.6	1737.9	1745.5
37.5°	1541.1	1562.9	1533.7	1506.9	1510.7
40°	1371.1	1388.2	1357.4	1332.0	1328.1
42.5°	1158.9	1206.5	1176.4	1141.8	1147.2
45°	756.7	880.7	889.3	858.9	721.6
47.5°	381.5	516.9	619.0	469.7	336.6
50°	222.3	304.3	450.5	248.7	208.7
52.5°	145.9	180.6	314.8	157.2	138.5
55°	70.2	81.7	134.6	75.9	70.2
57.5°	24.2	37.2	59.7	38.0	26.9
60°	3.9	15.3	33.2	11.5	2.0
62.5°	2.3	4.6	20.7	2.3	0.4
65°	2.0	2.0	2.0	0.0	0.0
67.5°	2.0	2.0	0.0	0.0	0.0
70°	2.0	2.0	0.0	0.0	0.0
72.5°	2.0	2.0	0.0	0.0	0.0
75°	0.0	1.9	0.0	0.0	0.0
77.5°	0.0	1.9	0.0	0.0	0.0
80°	0.0	1.9	0.0	0.0	0.0
82.5°	0.0	1.9	0.0	0.0	0.0
85°	2.0	2.0	0.0	0.0	0.0
87.5°	1.6	1.8	0.4	0.6	0.6
90°	0.0	1.0	2.0	3.0	3.0
92.5°	2.4	3.4	4.5	6.3	7.1
95°	8.1	15.1	8.1	9.2	11.2
97.5°	14.4	28.9	59.8	17.6	15.2
100°	19.3	36.2	119.9	35.3	23.4
102.5°	24.2	41.9	162.2	93.1	51.0
105°	31.5	48.4	183.9	235.0	155.5
107.5°	38.8	51.5	175.6	342.0	320.3
110°	43.7	55.6	170.7	359.3	386.2



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**CANDELA DISTRIBUTION (continued):**

	0°	22.5°	45°	67.5°	90°
112.5°	48.6	60.5	165.8	349.2	394.3
115°	55.9	67.8	158.5	329.5	385.2
117.5°	63.4	75.1	156.7	308.2	365.4
120°	69.1	80.0	153.5	292.0	351.6
122.5°	73.2	84.9	149.4	278.1	332.9
125°	80.3	91.2	149.4	261.2	308.9
127.5°	86.2	97.3	149.6	241.7	288.8
130°	89.4	101.4	150.4	228.7	273.4
132.5°	93.5	105.4	150.4	222.8	259.5
135°	99.6	110.5	150.4	215.1	246.9
137.5°	104.7	116.4	150.4	206.7	233.9
140°	108.7	119.7	150.4	201.8	226.6
142.5°	112.8	122.9	151.2	196.1	219.3
145°	117.9	127.8	151.4	187.4	207.3
147.5°	124.0	132.7	152.6	181.2	196.5
150°	128.0	136.0	153.5	177.1	190.0
152.5°	132.1	139.3	153.5	173.8	184.3
155°	138.2	143.2	154.5	169.9	177.8
157.5°	143.1	147.9	155.7	167.4	173.2
160°	146.3	150.3	156.5	165.8	170.7
162.5°	148.8	152.8	157.3	164.9	168.3
165°	153.5	155.4	158.5	162.7	165.6
167.5°	156.1	157.9	159.5	161.6	163.4
170°	158.5	159.5	159.5	161.6	162.6
172.5°	159.3	161.1	160.4	160.8	161.8
175°	161.6	162.6	161.6	160.5	159.5
177.5°	161.6	162.4	161.6	161.6	160.8
180°	161.6	161.6	161.6	161.6	161.6

(END OF REPORT)