

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: P644530

Luminaire Tested: OMN4DIP-SR4F0-100D125U930-WBMOOB-1DUDD-WW

Issue Date: 9/2/2020



**Test Information**

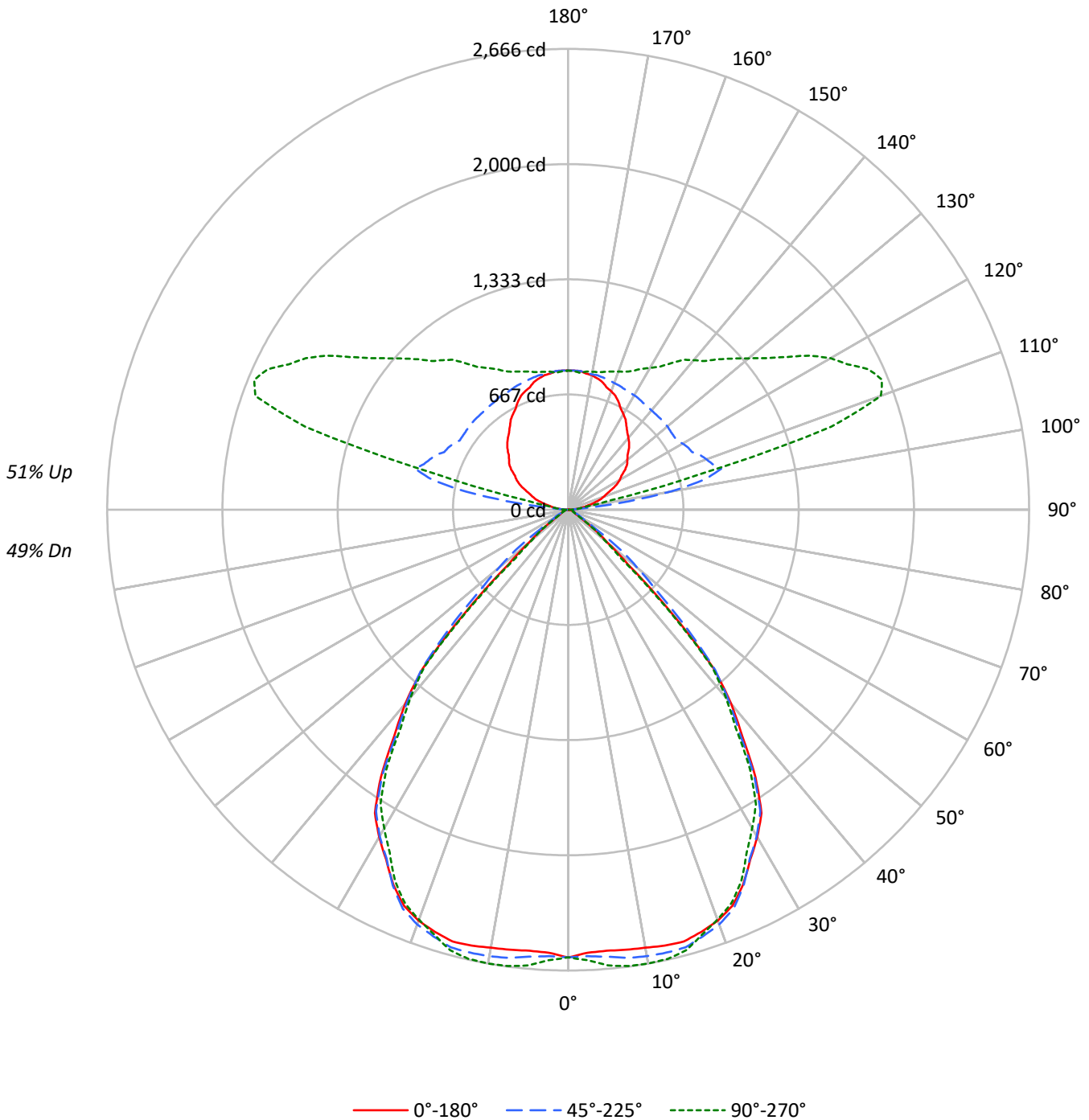
Test Method: LM-79-2019  
Report Number: P644530  
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2203-563-26, G2-2206-689-27)  
Test Lab: INNOVATION CENTER  
Issue Date: 9/2/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: NEO-RAY  
Catalog Number: OMN4DIP-SR4F0-100D125U930-WBMOOB-1DUDD-WW  
Description: NEO-RAY CIRQUE 4-INCH DIAMETER LINEAR LED LUMINAIRE  
DOWNLIGHT - WHITE BAFFLE WITH MEDIUM OPTIC - 1000 LUMENS PER FOOT  
UPLIGHT - BATWING OPTIC - 1250 LUMENS PER FOOT  
Light Source: 3000K CCT, 90 CRI LEDS  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 8492.4 lumens  
Efficiency: N/A  
Efficacy: 111.3 lumens/watt  
Spacing Criteria (0/90/45): 1.24 / 1.21 / 1.19  
Luminous Opening: Rectangular (W 0.21' x L: 4' x H: 0')  
CIE Type: General Diffuse  
  
Input Watts (W): 76.3  
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	50	30	10	0	
RCR																						
0	107	107	107	107	99	99	99	99	83	83	83	68	68	68	55	55	55	49				
1	99	96	92	89	92	89	86	83	75	73	72	63	62	60	51	51	50	45				
2	92	86	81	76	85	80	75	71	68	65	62	57	55	53	48	46	45	41				
3	85	77	71	66	79	72	66	62	62	58	55	53	50	47	44	42	41	37				
4	79	70	63	57	73	65	59	54	56	52	48	48	45	42	41	38	37	33				
5	73	63	56	51	68	59	53	48	51	47	43	44	41	38	38	35	33	30				
6	68	57	50	45	63	54	47	43	47	42	38	41	37	34	35	32	30	27				
7	63	52	45	40	59	49	43	38	43	38	35	38	34	31	32	30	28	25				
8	59	48	41	36	55	45	39	34	40	35	31	35	31	28	30	27	25	23				
9	55	44	37	33	51	42	35	31	37	32	29	32	29	26	28	25	23	21				
10	52	41	34	30	48	38	32	28	34	29	26	30	26	24	26	23	21	20				

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

	0°	45°	90°
0°	33454	33454	33454
5°	33202	33657	34315
10°	33740	34405	34967
15°	34582	35052	35286
20°	34770	35091	34690
25°	34105	34188	33772
30°	32609	32521	31736
35°	29769	29523	28908
40°	24729	24368	23908
45°	15532	17670	14820
50°	5956	10463	5526
55°	2810	4391	2855
60°	1361	2217	1209
65°	1253	1311	1134
70°	1254	1254	1107
75°	1268	1268	1073
80°	1309	1160	1019
85°	1452	1156	874

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 45°

Vertical Angle: 45°

Luminance: 17670 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	249.5	2.9
10°-20°	737.8	8.7
20°-30°	1096.1	12.9
30°-40°	1147.2	13.5
40°-50°	694.9	8.2
50°-60°	160.3	1.9
60°-70°	44.1	0.5
70°-80°	25.8	0.3
80°-90°	10.7	0.1
90°-100°	99.0	1.2
100°-110°	705.5	8.3
110°-120°	957.8	11.3
120°-130°	779.6	9.2
130°-140°	627.0	7.4
140°-150°	494.3	5.8
150°-160°	361.4	4.3
160°-170°	224.5	2.6
170°-180°	76.6	0.9
0°-30°	2083.4	24.5
0°-40°	3230.6	38.0
0°-60°	4085.9	48.1
0°-90°	4166.5	49.1
90°-120°	1762.4	20.8
90°-150°	3663.3	43.1
90°-180°	4326.0	50.9
0°-180°	8492.4	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	2590	2590	2590	2590	2590	
5°	2561	2620	2596	2606	2646	245
15°	2586	2664	2621	2601	2639	728
25°	2393	2464	2399	2337	2370	1096
35°	1888	1916	1872	1830	1833	1160
45°	850	967	967	933	811	653
55°	125	142	195	134	127	130
65°	41	43	43	39	37	41
75°	25	25	25	23	22	27
85°	10	10	8	8	6	10
90°	0	5	10	15	15	2
95°	40	75	40	46	56	45
105°	157	241	917	1171	775	166
115°	279	338	790	1642	1920	277
125°	400	455	744	1302	1540	356
135°	496	551	750	1072	1231	382
145°	588	637	755	934	1033	369
155°	689	714	770	847	886	316
165°	765	775	790	811	826	215
175°	805	810	805	800	795	76
180°	805	805	805	805	805	

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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	2590.0	2590.0	2590.0	2590.0	2590.0
2.5°	2565.0	2610.8	2585.3	2587.3	2608.7
5°	2560.7	2619.8	2595.8	2606.5	2646.5
7.5°	2567.7	2629.5	2615.3	2619.1	2662.9
10°	2572.4	2637.3	2623.1	2622.2	2666.0
12.5°	2583.3	2651.2	2624.7	2619.0	2661.4
15°	2586.1	2664.3	2621.2	2600.6	2638.7
17.5°	2560.7	2646.9	2588.8	2546.2	2576.7
20°	2529.5	2617.2	2552.9	2493.2	2523.7
22.5°	2481.1	2567.3	2498.3	2433.9	2465.9
25°	2393.0	2463.6	2398.8	2337.2	2369.6
27.5°	2281.4	2331.0	2275.6	2217.1	2235.4
30°	2186.3	2235.8	2180.4	2120.1	2127.8
32.5°	2080.2	2122.1	2068.1	2014.0	2020.1
35°	1887.9	1916.5	1872.3	1829.5	1833.3
37.5°	1653.8	1657.7	1627.7	1588.7	1589.5
40°	1466.6	1478.1	1445.2	1414.0	1417.9
42.5°	1243.5	1288.5	1256.4	1228.3	1229.1
45°	850.3	966.6	967.3	933.4	811.3
47.5°	469.6	604.3	690.8	535.7	404.5
50°	296.4	382.3	520.7	313.1	275.0
52.5°	212.2	250.7	380.3	221.5	201.7
55°	124.8	142.0	195.0	134.4	126.8
57.5°	76.1	90.9	113.9	89.8	76.5
60°	52.7	66.0	85.8	60.2	46.8
62.5°	46.4	50.6	67.1	47.9	43.7
65°	41.0	42.9	42.9	39.0	37.1
67.5°	36.3	38.2	36.3	34.3	32.4
70°	33.2	35.1	33.2	31.2	29.3
72.5°	30.0	31.9	30.0	28.0	26.1
75°	25.4	25.4	25.4	23.4	21.5
77.5°	20.7	20.7	20.3	18.7	16.8
80°	17.6	17.6	15.6	15.6	13.7
82.5°	14.4	14.4	12.5	12.4	10.5
85°	9.8	9.8	7.8	7.8	5.9
87.5°	4.7	5.7	5.1	6.1	4.6
90°	0.0	5.0	10.1	15.2	15.2
92.5°	12.2	17.1	22.3	31.5	35.5
95°	40.5	75.2	40.5	45.8	55.7
97.5°	71.9	144.2	297.8	87.9	76.0
100°	96.2	180.4	597.6	175.9	116.5
102.5°	120.5	208.7	808.3	464.2	254.2
105°	157.0	241.2	916.7	1171.1	774.9
107.5°	193.5	256.9	875.2	1704.4	1596.4
110°	217.8	277.2	850.9	1790.9	1924.6



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**CANDELA DISTRIBUTION (continued):**

	0°	22.5°	45°	67.5°	90°
112.5°	242.1	301.5	826.6	1740.3	1965.1
115°	278.6	338.0	790.1	1642.2	1919.5
117.5°	316.0	374.5	781.0	1536.0	1821.3
120°	344.4	398.9	764.8	1455.3	1752.4
122.5°	364.7	423.1	744.5	1385.8	1659.2
125°	400.1	454.6	744.5	1302.0	1539.7
127.5°	429.5	485.0	745.5	1204.7	1439.4
130°	445.7	505.1	749.6	1139.6	1362.4
132.5°	466.0	525.4	749.6	1110.3	1293.5
135°	496.3	550.8	749.6	1072.3	1230.7
137.5°	521.7	580.1	749.6	1030.2	1165.9
140°	541.9	596.4	749.6	1005.6	1129.4
142.5°	562.2	612.7	753.6	977.1	1093.0
145°	587.5	637.0	754.6	934.2	1033.2
147.5°	617.9	661.5	760.7	903.3	979.5
150°	638.2	677.8	764.8	882.7	947.1
152.5°	658.4	694.1	764.8	866.2	918.7
155°	688.8	713.6	769.8	846.7	886.3
157.5°	713.1	736.9	775.9	834.3	863.0
160°	729.3	749.1	780.0	826.1	850.9
162.5°	741.5	761.3	784.0	821.9	838.7
165°	764.8	774.7	790.1	810.7	825.6
167.5°	777.9	786.9	795.2	805.5	814.4
170°	790.1	795.1	795.2	805.4	810.4
172.5°	794.2	803.1	799.2	801.4	806.3
175°	805.3	810.2	805.3	800.1	795.2
177.5°	805.3	809.3	805.3	805.2	801.2
180°	805.3	805.3	805.3	805.3	805.3

(END OF REPORT)