

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: P644536

Luminaire Tested: OMN4DIP-SR4F0-100D125U935-WBMOOB-1DUDD-WW

Issue Date: 9/2/2020



**Test Information**

Test Method: LM-79-2019  
Report Number: P644536  
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-SR4F0-100D125U935-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: 3500K CCT, 90 CRI LEDS  
Ballast/Driver: ELECTRONIC DRIVER

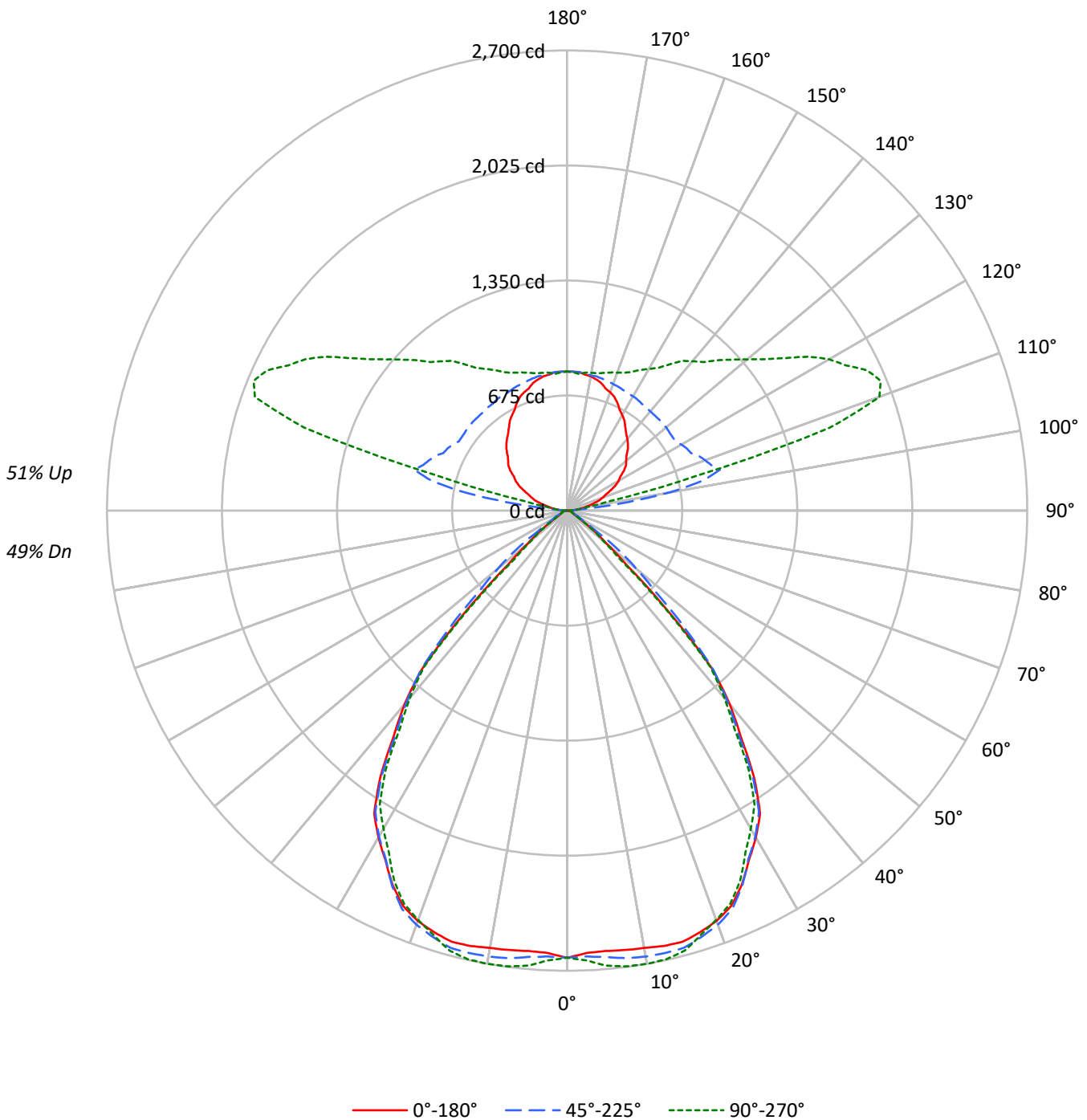
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 8601.7 lumens  
Efficiency: N/A  
Efficacy: 112.7 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°	33886	33886	33886
5°	33630	34092	34757
10°	34175	34848	35418
15°	35028	35504	35740
20°	35218	35544	35137
25°	34544	34630	34206
30°	33028	32940	32145
35°	30152	29903	29280
40°	25048	24682	24215
45°	15733	17898	15012
50°	6034	10598	5596
55°	2846	4448	2892
60°	1377	2245	1225
65°	1268	1330	1146
70°	1269	1269	1118
75°	1283	1283	1083
80°	1324	1175	1027
85°	1467	1171	874

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 45°

Vertical Angle: 45°

Luminance: 17898 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	252.7	2.9
10°-20°	747.4	8.7
20°-30°	1110.2	12.9
30°-40°	1162.0	13.5
40°-50°	703.8	8.2
50°-60°	162.4	1.9
60°-70°	44.6	0.5
70°-80°	26.1	0.3
80°-90°	10.9	0.1
90°-100°	100.3	1.2
100°-110°	714.6	8.3
110°-120°	970.2	11.3
120°-130°	789.6	9.2
130°-140°	635.1	7.4
140°-150°	500.7	5.8
150°-160°	366.1	4.3
160°-170°	227.4	2.6
170°-180°	77.5	0.9
0°-30°	2110.3	24.5
0°-40°	3272.3	38.0
0°-60°	4138.5	48.1
0°-90°	4220.2	49.1
90°-120°	1785.1	20.8
90°-150°	3710.5	43.1
90°-180°	4382.0	50.9
0°-180°	8601.7	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	2623	2623	2623	2623	2623	
5°	2594	2654	2629	2640	2681	248
15°	2619	2699	2655	2634	2673	737
25°	2424	2495	2430	2367	2400	1110
35°	1912	1941	1896	1853	1857	1175
45°	861	979	980	945	822	661
55°	126	144	198	136	128	131
65°	42	43	44	40	38	42
75°	26	26	26	24	22	27
85°	10	10	8	8	6	10
90°	0	5	10	15	15	2
95°	41	76	41	46	56	46
105°	159	244	928	1186	785	168
115°	282	342	800	1663	1944	280
125°	405	460	754	1319	1560	360
135°	503	558	759	1086	1247	387
145°	595	645	764	946	1046	374
155°	698	723	780	858	898	320
165°	775	785	800	821	836	218
175°	816	821	816	810	805	77
180°	816	816	816	816	816	

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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	2623.4	2623.4	2623.4	2623.4	2623.4
2.5°	2598.1	2644.4	2618.6	2620.7	2642.3
5°	2593.7	2653.6	2629.3	2640.1	2680.6
7.5°	2600.8	2663.4	2649.0	2652.8	2697.2
10°	2605.6	2671.2	2656.9	2656.0	2700.4
12.5°	2616.6	2685.4	2658.5	2652.8	2695.7
15°	2619.4	2698.6	2655.0	2634.1	2672.7
17.5°	2593.7	2681.0	2622.2	2579.0	2609.9
20°	2562.1	2651.0	2585.8	2525.3	2556.2
22.5°	2513.1	2600.4	2530.5	2465.3	2497.7
25°	2423.8	2495.3	2429.8	2367.3	2400.1
27.5°	2310.8	2361.1	2304.9	2245.7	2264.2
30°	2214.4	2264.7	2208.5	2147.5	2155.2
32.5°	2107.0	2149.5	2094.7	2040.0	2046.1
35°	1912.2	1941.2	1896.4	1853.0	1856.9
37.5°	1675.2	1679.0	1648.7	1609.2	1610.0
40°	1485.5	1497.1	1463.8	1432.3	1436.1
42.5°	1259.5	1305.1	1272.6	1244.1	1244.9
45°	861.3	979.1	979.8	945.4	821.8
47.5°	475.7	612.0	699.7	542.6	409.7
50°	300.3	387.2	527.4	317.2	278.5
52.5°	214.9	253.9	385.2	224.3	204.3
55°	126.4	143.8	197.5	136.1	128.4
57.5°	77.0	92.1	115.4	91.0	77.4
60°	53.3	66.9	86.9	60.9	47.4
62.5°	47.0	51.3	68.0	48.5	44.2
65°	41.5	43.4	43.5	39.5	37.5
67.5°	36.7	38.7	36.7	34.7	32.8
70°	33.6	35.5	33.6	31.6	29.6
72.5°	30.4	32.4	30.4	28.4	26.5
75°	25.7	25.7	25.7	23.7	21.7
77.5°	20.9	20.9	20.5	18.9	17.0
80°	17.8	17.8	15.8	15.8	13.8
82.5°	14.6	14.6	12.6	12.6	10.7
85°	9.9	9.9	7.9	7.9	5.9
87.5°	4.7	5.7	5.2	6.2	4.7
90°	0.0	5.0	10.3	15.4	15.4
92.5°	12.3	17.3	22.6	31.9	35.9
95°	41.0	76.2	41.0	46.4	56.4
97.5°	72.8	146.1	301.6	89.0	77.0
100°	97.5	182.7	605.3	178.2	118.0
102.5°	122.1	211.4	818.7	470.2	257.5
105°	159.0	244.3	928.5	1186.2	784.9
107.5°	196.0	260.2	886.5	1726.3	1617.0
110°	220.6	280.8	861.8	1814.0	1949.4



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**CANDELA DISTRIBUTION (continued):**

	0°	22.5°	45°	67.5°	90°
112.5°	245.2	305.4	837.2	1762.7	1990.4
115°	282.2	342.3	800.3	1663.4	1944.3
117.5°	320.1	379.3	791.0	1555.8	1844.8
120°	348.8	404.0	774.6	1474.0	1775.0
122.5°	369.4	428.5	754.1	1403.7	1680.6
125°	405.3	460.4	754.1	1318.8	1559.5
127.5°	435.0	491.2	755.1	1220.2	1457.9
130°	451.4	511.6	759.2	1154.3	1380.0
132.5°	472.0	532.2	759.2	1124.6	1310.2
135°	502.7	557.9	759.2	1086.1	1246.6
137.5°	528.4	587.6	759.2	1043.5	1180.9
140°	548.9	604.1	759.2	1018.6	1144.0
142.5°	569.4	620.6	763.3	989.7	1107.1
145°	595.1	645.2	764.4	946.2	1046.5
147.5°	625.9	670.0	770.5	914.9	992.1
150°	646.4	686.5	774.6	894.1	959.3
152.5°	666.9	703.0	774.6	877.4	930.6
155°	697.7	722.8	779.8	857.6	897.8
157.5°	722.3	746.4	785.9	845.1	874.2
160°	738.7	758.8	790.0	836.8	861.8
162.5°	751.0	771.1	794.1	832.5	849.5
165°	774.6	784.7	800.3	821.1	836.2
167.5°	788.0	797.0	805.4	815.9	824.9
170°	800.3	805.3	805.4	815.8	820.8
172.5°	804.4	813.4	809.5	811.7	816.7
175°	815.7	820.7	815.7	810.4	805.4
177.5°	815.7	819.7	815.7	815.6	811.6
180°	815.7	815.7	815.7	815.7	815.7

(END OF REPORT)