

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: P645155

Luminaire Tested: OMN4DIP-SR4F0-75D50U930-BBMOOB-1DUDD-WW

Issue Date: 9/2/2020



**Test Information**

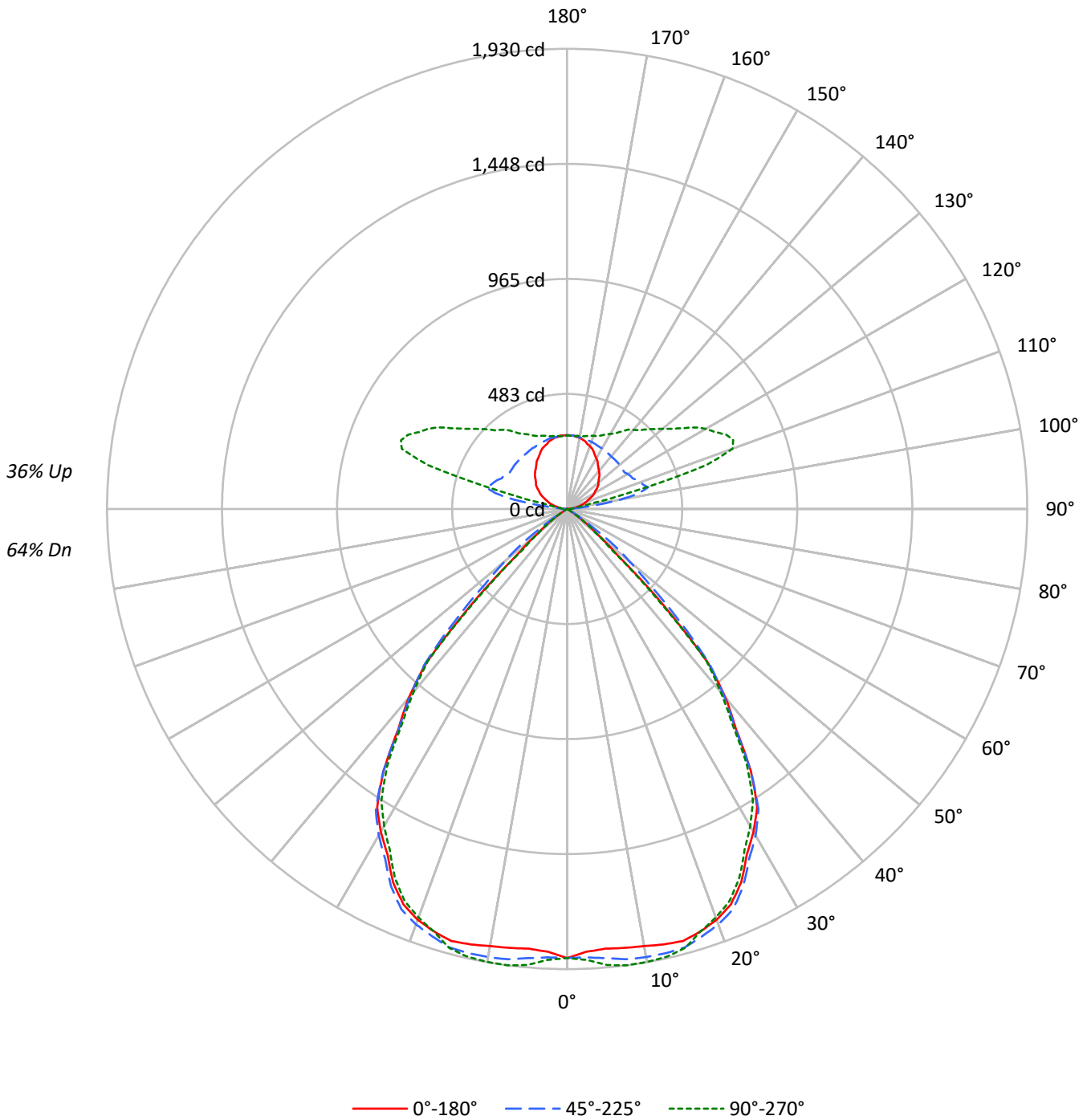
Test Method: LM-79-2019  
Report Number: P645155  
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2203-563-26, G2-2206-689-23)  
Test Lab: INNOVATION CENTER  
Issue Date: 9/2/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: NEO-RAY  
Catalog Number: OMN4DIP-SR4F0-75D50U930-BBMOOB-1DUDD-WW  
Description: NEO-RAY CIRQUE 4-INCH DIAMETER LINEAR LED LUMINAIRE  
DOWNLIGHT - BLACK BAFFLE WITH MEDIUM OPTIC - 750 LUMENS PER FOOT  
UPLIGHT - BATWING OPTIC - 500 LUMENS PER FOOT  
Light Source: 3000K CCT, 90 CRI LEDS  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 4553.1 lumens  
Efficiency: N/A  
Efficacy: 107.1 lumens/watt  
Spacing Criteria (0/90/45): 1.22 / 1.2 / 1.18  
Luminous Opening: Rectangular (W 0.21' x L: 4' x H: 0')  
CIE Type: Semi-Direct  
  
Input Watts (W): 42.5  
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
RW	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10
RCR																	
0	110	110	110	110	104	104	104	104	91	91	91	79	79	79	69	69	69
1	103	100	97	94	97	94	92	89	83	82	80	74	72	71	64	64	63
2	96	90	85	81	91	85	81	78	76	73	70	68	66	64	60	58	57
3	90	82	76	71	84	78	72	68	70	66	63	62	60	57	56	54	52
4	83	74	68	63	79	71	65	60	64	59	56	58	54	51	52	49	47
5	78	68	61	56	73	65	59	54	59	54	50	53	49	46	48	45	43
6	73	62	55	50	69	59	53	48	54	49	45	49	45	42	45	41	39
7	68	57	50	45	64	55	48	44	50	45	41	46	41	38	41	38	36
8	63	52	46	41	60	50	44	40	46	41	37	42	38	35	39	35	33
9	60	49	42	37	56	47	40	36	43	38	34	39	35	32	36	33	30
10	56	45	38	34	53	43	37	33	40	35	31	37	33	30	34	30	28

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

	0°	45°	90°
0°	24327	24327	24327
5°	24000	24515	24896
10°	24413	25031	25299
15°	25087	25460	25500
20°	25201	25484	25060
25°	24620	24893	24348
30°	23311	23573	22893
35°	21190	21190	20750
40°	17428	17254	16882
45°	10419	12246	9937
50°	3368	6824	3161
55°	1191	2283	1191
60°	75	646	39
65°	46	46	0
70°	57	0	0
75°	0	0	0
80°	0	0	0
85°	222	0	0

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 45°  
 Vertical Angle: 45°  
 Luminance: 12246 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	181.2	4.0
10°-20°	536.1	11.8
20°-30°	793.4	17.4
30°-40°	820.1	18.0
40°-50°	477.2	10.5
50°-60°	80.8	1.8
60°-70°	3.2	0.1
70°-80°	0.5	0.0
80°-90°	1.1	0.0
90°-100°	38.0	0.8
100°-110°	270.7	5.9
110°-120°	367.5	8.1
120°-130°	299.1	6.6
130°-140°	240.5	5.3
140°-150°	189.6	4.2
150°-160°	138.7	3.0
160°-170°	86.1	1.9
170°-180°	29.4	0.6
0°-30°	1510.7	33.2
0°-40°	2330.9	51.2
0°-60°	2888.9	63.4
0°-90°	2893.6	63.6
90°-120°	676.1	14.8
90°-150°	1405.3	30.9
90°-180°	1659.0	36.4
0°-180°	4553.1	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1883	1883	1883	1883	1883	
5°	1851	1900	1891	1896	1920	177
15°	1876	1942	1904	1894	1907	528
25°	1728	1785	1747	1694	1708	789
35°	1344	1365	1344	1310	1316	823
45°	570	664	670	648	544	441
55°	53	62	101	57	53	58
65°	2	2	2	0	0	2
75°	0	1	0	0	0	1
85°	2	2	0	0	0	1
90°	0	2	4	6	6	1
95°	16	29	16	18	21	17
105°	60	92	352	449	297	63
115°	107	130	303	630	736	106
125°	154	174	286	500	591	136
135°	190	211	288	411	472	146
145°	225	244	290	358	396	142
155°	264	274	295	325	340	121
165°	293	297	303	311	317	82
175°	309	311	309	307	305	29
180°	309	309	309	309	309	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1883.4	1883.4	1883.4	1883.4	1883.4
2.5°	1858.7	1895.5	1882.2	1883.6	1892.8
5°	1851.0	1899.9	1890.7	1895.7	1920.1
7.5°	1856.6	1906.1	1904.8	1906.3	1930.1
10°	1861.3	1913.1	1908.4	1907.4	1928.9
12.5°	1870.7	1927.1	1908.4	1906.1	1924.2
15°	1876.0	1942.1	1903.9	1893.9	1906.9
17.5°	1858.1	1931.7	1879.8	1853.2	1858.4
20°	1833.4	1908.1	1854.0	1814.5	1823.1
22.5°	1794.6	1865.9	1817.5	1768.6	1779.6
25°	1727.5	1785.0	1746.6	1694.0	1708.4
27.5°	1632.2	1677.7	1653.4	1602.5	1611.4
30°	1562.9	1600.2	1580.5	1530.6	1534.9
32.5°	1482.9	1514.5	1493.5	1450.5	1450.2
35°	1343.8	1365.4	1343.8	1310.1	1315.9
37.5°	1161.8	1178.2	1156.2	1136.0	1138.8
40°	1033.6	1046.5	1023.3	1004.1	1001.2
42.5°	873.6	909.5	886.8	860.8	864.8
45°	570.4	663.9	670.4	647.5	544.0
47.5°	287.6	389.6	466.7	354.1	253.8
50°	167.6	229.4	339.6	187.5	157.3
52.5°	110.0	136.1	237.3	118.5	104.4
55°	52.9	61.6	101.4	57.2	52.9
57.5°	18.2	28.0	45.0	28.6	20.3
60°	2.9	11.6	25.0	8.7	1.5
62.5°	1.8	3.5	15.6	1.7	0.3
65°	1.5	1.5	1.5	0.0	0.0
67.5°	1.5	1.5	0.0	0.0	0.0
70°	1.5	1.5	0.0	0.0	0.0
72.5°	1.5	1.5	0.0	0.0	0.0
75°	0.0	1.4	0.0	0.0	0.0
77.5°	0.0	1.4	0.0	0.0	0.0
80°	0.0	1.4	0.0	0.0	0.0
82.5°	0.0	1.4	0.0	0.0	0.0
85°	1.5	1.5	0.0	0.0	0.0
87.5°	1.2	1.6	0.8	1.2	1.2
90°	0.0	1.9	3.9	5.8	5.8
92.5°	4.7	6.6	8.5	12.1	13.6
95°	15.5	28.8	15.5	17.6	21.4
97.5°	27.6	55.3	114.2	33.7	29.1
100°	36.9	69.2	229.3	67.5	44.7
102.5°	46.2	80.1	310.1	178.1	97.5
105°	60.2	92.5	351.7	449.3	297.3
107.5°	74.2	98.5	335.7	653.8	612.4
110°	83.5	106.3	326.4	687.0	738.3



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**CANDELA DISTRIBUTION (continued):**

	0°	22.5°	45°	67.5°	90°
112.5°	92.9	115.7	317.1	667.6	753.9
115°	106.9	129.7	303.1	630.0	736.4
117.5°	121.2	143.7	299.6	589.3	698.7
120°	132.1	153.0	293.4	558.3	672.3
122.5°	139.9	162.3	285.6	531.6	636.5
125°	153.5	174.4	285.6	499.5	590.7
127.5°	164.8	186.0	286.0	462.1	552.2
130°	171.0	193.8	287.6	437.2	522.7
132.5°	178.8	201.5	287.6	425.9	496.2
135°	190.4	211.3	287.6	411.3	472.1
137.5°	200.1	222.5	287.6	395.2	447.3
140°	207.9	228.8	287.6	385.8	433.3
142.5°	215.7	235.0	289.1	374.8	419.3
145°	225.4	244.4	289.5	358.4	396.4
147.5°	237.0	253.8	291.8	346.5	375.8
150°	244.8	260.0	293.4	338.6	363.3
152.5°	252.6	266.3	293.4	332.3	352.5
155°	264.2	273.7	295.3	324.8	340.0
157.5°	273.6	282.7	297.7	320.1	331.1
160°	279.8	287.4	299.2	316.9	326.4
162.5°	284.4	292.0	300.8	315.3	321.8
165°	293.4	297.2	303.1	311.0	316.7
167.5°	298.4	301.9	305.0	309.0	312.4
170°	303.1	305.0	305.0	309.0	310.9
172.5°	304.7	308.1	306.6	307.4	309.3
175°	308.9	310.8	308.9	306.9	305.0
177.5°	308.9	310.4	308.9	308.9	307.4
180°	308.9	308.9	308.9	308.9	308.9

(END OF REPORT)