

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: P645271

Luminaire Tested: OMN4DP-SR4F0-75D940-BBM-1DUDD-WW

Issue Date: 9/2/2020



**Test Information**

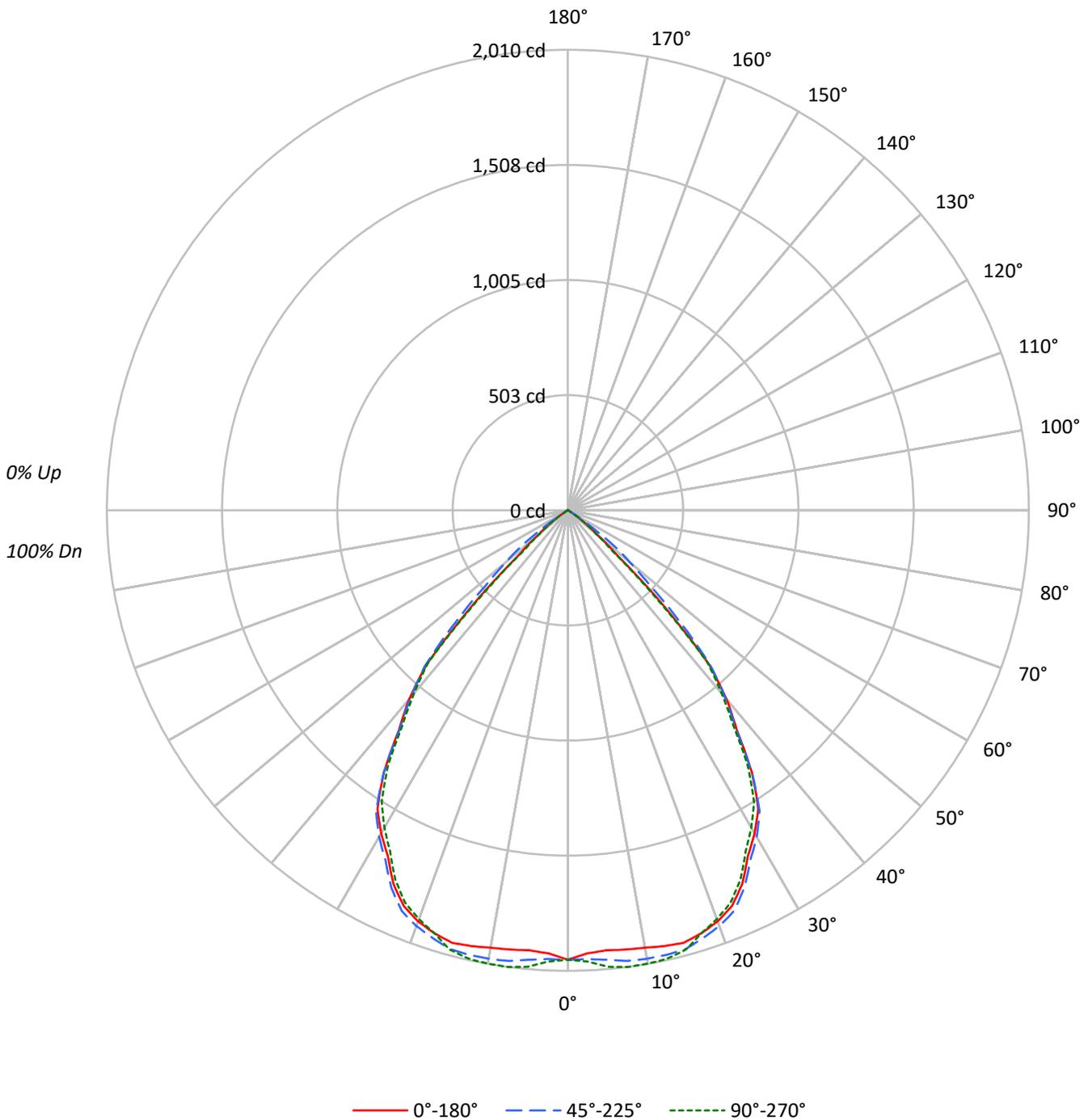
Test Method: LM-79-2019  
Report Number: P645271  
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2206-689-23)  
Test Lab: INNOVATION CENTER  
Issue Date: 9/2/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: NEO-RAY  
Catalog Number: OMN4DP-SR4F0-75D940-BBM-1DUDD-WW  
Description: NEO-RAY CIRQUE 4-INCH DIAMETER LINEAR LED LUMINAIRE  
DOWNLIGHT - BLACK BAFFLE WITH MEDIUM OPTIC - 750 LUMENS PER FOOT  
DIRECT ONLY  
Light Source: 4000K CCT, 90 CRI LEDS  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 3012.9 lumens  
Efficiency: N/A  
Efficacy: 108.0 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: Direct  
  
Input Watts (W): 27.9  
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	50	30	10	0		
RCR																										
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100					100			
1	113	110	107	105	110	108	105	103	103	102	100	100	98	97	96	95	94	92					92			
2	106	101	96	92	104	99	95	91	96	92	89	93	90	87	90	88	86	84					84			
3	100	93	87	83	98	91	86	82	89	84	81	86	82	79	84	81	78	76					76			
4	94	85	79	74	92	84	78	74	82	77	73	80	75	72	78	74	71	69					69			
5	88	79	72	67	86	78	71	67	76	70	66	74	69	65	72	68	65	63					63			
6	83	73	66	61	81	72	65	61	70	64	60	69	64	60	67	63	59	58					58			
7	78	67	60	56	76	66	60	55	65	59	55	64	59	55	63	58	54	53					53			
8	73	62	56	51	72	62	55	51	61	55	51	59	54	50	58	54	50	49					49			
9	69	58	51	47	68	58	51	47	57	51	47	56	50	46	55	50	46	45					45			
10	65	54	48	43	64	54	47	43	53	47	43	52	47	43	51	46	43	41					41			

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

	0°	45°	90°
0°	25336	25336	25336
5°	24996	25533	25930
10°	25425	26068	26350
15°	26127	26516	26558
20°	26246	26542	26099
25°	25642	25926	25359
30°	24277	24551	23843
35°	22068	22068	21611
40°	18151	17969	17583
45°	10852	12754	10350
50°	3509	7108	3292
55°	1241	2380	1241
60°	80	672	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: 12754 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	188.7	6.3
10°-20°	558.4	18.5
20°-30°	826.3	27.4
30°-40°	854.1	28.3
40°-50°	497.0	16.5
50°-60°	84.2	2.8
60°-70°	3.3	0.1
70°-80°	0.5	0.0
80°-90°	0.4	0.0
90°-100°	0.0	0.0
100°-110°	0.0	0.0
110°-120°	0.0	0.0
120°-130°	0.0	0.0
130°-140°	0.0	0.0
140°-150°	0.0	0.0
150°-160°	0.0	0.0
160°-170°	0.0	0.0
170°-180°	0.0	0.0
0°-30°	1573.4	52.2
0°-40°	2427.5	80.6
0°-60°	3008.7	99.9
0°-90°	3012.9	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3012.9	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1962	1962	1962	1962	1962	
5°	1928	1979	1969	1974	2000	185
15°	1954	2023	1983	1972	1986	550
25°	1799	1859	1819	1764	1779	822
35°	1400	1422	1400	1364	1370	857
45°	594	691	698	674	567	459
55°	55	64	106	60	55	61
65°	2	2	2	0	0	2
75°	0	2	0	0	0	1
85°	2	2	0	0	0	1
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1961.5	1961.5	1961.5	1961.5	1961.5
2.5°	1935.8	1974.1	1960.3	1961.7	1971.3
5°	1927.8	1978.7	1969.2	1974.3	1999.8
7.5°	1933.6	1985.1	1983.9	1985.3	2010.2
10°	1938.5	1992.4	1987.5	1986.5	2009.0
12.5°	1948.3	2007.0	1987.5	1985.2	2004.1
15°	1953.8	2022.7	1982.9	1972.5	1986.0
17.5°	1935.2	2011.8	1957.8	1930.1	1935.5
20°	1909.4	1987.3	1930.9	1889.7	1898.7
22.5°	1869.0	1943.3	1892.9	1842.0	1853.4
25°	1799.2	1859.1	1819.1	1764.3	1779.3
27.5°	1700.0	1747.3	1722.0	1668.9	1678.2
30°	1627.7	1666.6	1646.1	1594.1	1598.6
32.5°	1544.4	1577.3	1555.4	1510.7	1510.4
35°	1399.5	1422.0	1399.5	1364.5	1370.5
37.5°	1210.0	1227.0	1204.2	1183.1	1186.1
40°	1076.5	1089.9	1065.7	1045.8	1042.8
42.5°	909.9	947.3	923.6	896.5	900.7
45°	594.1	691.4	698.2	674.4	566.6
47.5°	299.5	405.8	486.0	368.8	264.3
50°	174.6	238.9	353.7	195.3	163.8
52.5°	114.5	141.8	247.1	123.4	108.7
55°	55.1	64.1	105.7	59.6	55.1
57.5°	19.0	29.2	46.9	29.8	21.1
60°	3.1	12.0	26.0	9.0	1.5
62.5°	1.8	3.6	16.2	1.8	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	1.5	0.0	0.0	0.0
77.5°	0.0	1.5	0.0	0.0	0.0
80°	0.0	1.5	0.0	0.0	0.0
82.5°	0.0	1.5	0.0	0.0	0.0
85°	1.5	1.5	0.0	0.0	0.0
87.5°	1.2	1.2	0.0	0.0	0.0
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)