

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: P645263

Luminaire Tested: OMN4DP-SR4F0-75D930-BBM-1DUDD-WW

Issue Date: 9/2/2020



**Test Information**

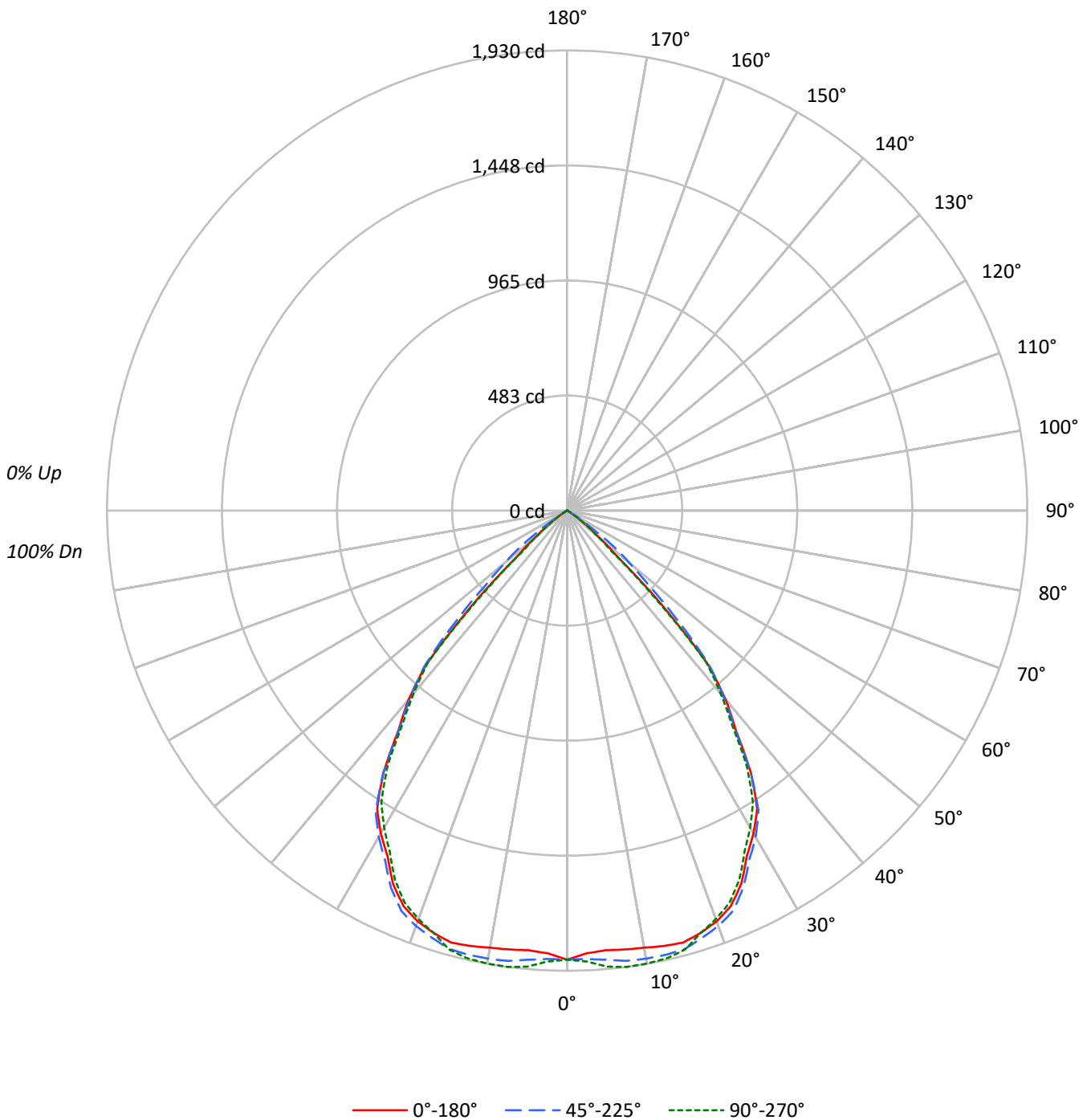
Test Method: LM-79-2019  
Report Number: P645263  
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2206-689-23)  
Test Lab: INNOVATION CENTER  
Issue Date: 9/2/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: NEO-RAY  
Catalog Number: OMN4DP-SR4F0-75D930-BBM-1DUDD-WW  
Description: NEO-RAY CIRQUE 4-INCH DIAMETER LINEAR LED LUMINAIRE  
DOWNLIGHT - BLACK BAFFLE WITH MEDIUM OPTIC - 750 LUMENS PER FOOT  
DIRECT ONLY  
Light Source: 3000K CCT, 90 CRI LEDS  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 2892.9 lumens  
Efficiency: N/A  
Efficacy: 103.7 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: Direct  
  
Input Watts (W): 27.9  
Input Voltage (V): 120  
Input Current (A<sub>in</sub>): 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	119	119	119	119	116	116	116	116	111	111	111		106	106	106		102	102	102	100
1	113	110	107	105	110	108	105	103	103	102	100		100	98	97		96	95	94	92
2	106	101	96	92	104	99	95	91	96	92	89		93	90	87		90	88	86	84
3	100	93	87	83	98	91	86	82	89	84	81		86	82	79		84	81	78	76
4	94	85	79	74	92	84	78	74	82	77	73		80	75	72		78	74	71	69
5	88	79	72	67	86	78	71	67	76	70	66		74	69	65		72	68	65	63
6	83	73	66	61	81	72	65	61	70	64	60		69	64	60		67	63	59	58
7	78	67	60	56	76	66	60	55	65	59	55		64	59	55		63	58	54	53
8	73	62	56	51	72	62	55	51	61	55	51		59	54	50		58	54	50	49
9	69	58	51	47	68	58	51	47	57	51	47		56	50	46		55	50	46	45
10	65	54	48	43	64	54	47	43	53	47	43		52	47	43		51	46	43	41

**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	6.3
10°-20°	536.1	18.5
20°-30°	793.4	27.4
30°-40°	820.1	28.3
40°-50°	477.2	16.5
50°-60°	80.8	2.8
60°-70°	3.2	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°	1510.7	52.2
0°-40°	2330.9	80.6
0°-60°	2888.9	99.9
0°-90°	2892.9	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2892.9	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	0	0	0	0	



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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	1.2	0.0	0.0	0.0
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)