

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: P645071

Luminaire Tested: OMN4DIP-SR4F0-75D125U935-BBMOOB-1DUDD-WW

Issue Date: 9/2/2020



Test Information

Test Method: LM-79-2019
Report Number: P645071
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-SR4F0-75D125U935-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 - 1250 LUMENS PER FOOT
Light Source: 3500K CCT, 90 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

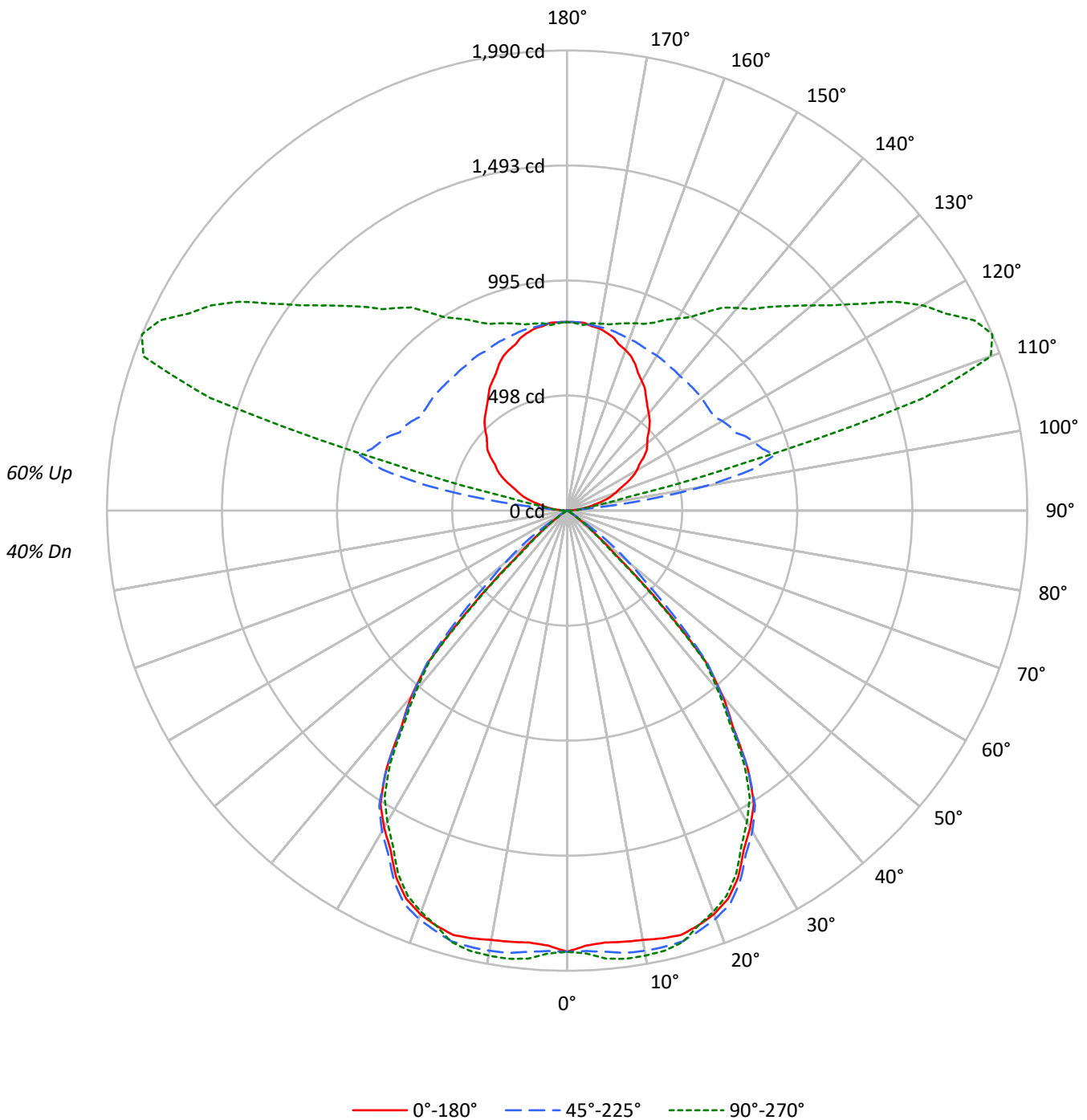
Lumens per Lamp: N/A
Luminaire Lumens: 7313.6 lumens
Efficiency: N/A
Efficacy: 110.6 lumens/watt
Spacing Criteria (0/90/45): 1.22 / 1.21 / 1.18
Luminous Opening: Rectangular (W 0.21' x L: 4' x H: 0')
CIE Type: General Diffuse

Input Watts (W): 66.1
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	0
RCR																		
0	105	105	105	105	95	95	95	95	78	78	78	62	62	62	47	47	47	40
1	97	93	90	87	88	85	83	80	70	69	67	57	56	54	44	43	43	37
2	90	84	78	74	82	77	72	69	64	61	58	52	50	48	41	40	39	34
3	83	75	69	64	76	69	64	59	58	54	51	47	45	43	38	36	35	31
4	77	67	61	55	70	62	56	52	52	48	45	43	40	38	35	33	32	28
5	71	61	54	49	65	56	50	46	48	43	40	40	37	34	32	30	29	25
6	66	55	48	43	60	51	45	41	44	39	36	37	33	31	30	28	26	23
7	61	50	43	38	56	47	41	36	40	35	32	34	30	28	28	25	24	21
8	57	46	39	34	53	43	37	33	37	32	29	31	28	25	26	23	22	19
9	53	42	36	31	49	40	34	29	34	29	26	29	26	23	24	22	20	18
10	50	39	32	28	46	36	31	27	32	27	24	27	24	21	22	20	18	17

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	24640	24640	24640
5°	24310	24831	25218
10°	24728	25353	25626
15°	25410	25789	25829
20°	25526	25813	25383
25°	24938	25213	24662
30°	23610	23877	23188
35°	21462	21462	21016
40°	17652	17477	17099
45°	10555	12405	10065
50°	3412	6913	3201
55°	1207	2315	1207
60°	78	654	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: 12405 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	183.5	2.5
10°-20°	543.1	7.4
20°-30°	803.6	11.0
30°-40°	830.7	11.4
40°-50°	483.3	6.6
50°-60°	81.9	1.1
60°-70°	3.2	0.0
70°-80°	0.5	0.0
80°-90°	2.3	0.0
90°-100°	100.3	1.4
100°-110°	714.6	9.8
110°-120°	970.2	13.3
120°-130°	789.6	10.8
130°-140°	635.1	8.7
140°-150°	500.7	6.8
150°-160°	366.1	5.0
160°-170°	227.4	3.1
170°-180°	77.5	1.1
0°-30°	1530.2	20.9
0°-40°	2360.9	32.3
0°-60°	2926.1	40.0
0°-90°	2932.1	40.1
90°-120°	1785.1	24.4
90°-150°	3710.5	50.7
90°-180°	4382.0	59.9
0°-180°	7313.6	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1908	1908	1908	1908	1908	
5°	1875	1924	1915	1920	1945	180
15°	1900	1967	1928	1918	1932	535
25°	1750	1808	1769	1716	1730	799
35°	1361	1383	1361	1327	1333	834
45°	578	672	679	656	551	447
55°	54	62	103	58	54	59
65°	2	2	2	0	0	2
75°	0	2	0	0	0	1
85°	2	2	0	0	0	1
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°	1907.6	1907.6	1907.6	1907.6	1907.6
2.5°	1882.6	1919.9	1906.4	1907.8	1917.2
5°	1874.9	1924.4	1915.1	1920.1	1944.9
7.5°	1880.5	1930.6	1929.4	1930.8	1955.0
10°	1885.3	1937.7	1933.0	1932.0	1953.8
12.5°	1894.8	1951.9	1933.0	1930.7	1949.0
15°	1900.2	1967.2	1928.5	1918.4	1931.5
17.5°	1882.0	1956.6	1904.1	1877.1	1882.3
20°	1857.0	1932.7	1877.9	1837.8	1846.6
22.5°	1817.7	1889.9	1840.9	1791.4	1802.5
25°	1749.8	1808.0	1769.1	1715.9	1730.4
27.5°	1653.3	1699.3	1674.7	1623.1	1632.1
30°	1583.0	1620.9	1600.9	1550.3	1554.7
32.5°	1502.0	1534.0	1512.7	1469.2	1468.9
35°	1361.1	1382.9	1361.1	1327.0	1332.8
37.5°	1176.7	1193.3	1171.1	1150.6	1153.5
40°	1046.9	1060.0	1036.5	1017.0	1014.1
42.5°	884.9	921.3	898.3	871.9	875.9
45°	577.8	672.4	679.1	655.8	551.0
47.5°	291.3	394.7	472.7	358.7	257.0
50°	169.8	232.4	344.0	189.9	159.3
52.5°	111.4	137.9	240.4	120.0	105.7
55°	53.6	62.3	102.8	58.0	53.6
57.5°	18.5	28.4	45.6	29.0	20.6
60°	3.0	11.7	25.3	8.8	1.5
62.5°	1.8	3.5	15.8	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	2.2	2.1	3.1	3.1
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)