

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: P645070

Luminaire Tested: OMN4DIP-SR4F0-75D125U930-WBMOOB-1DUDD-WW

Issue Date: 9/2/2020



Test Information

Test Method: LM-79-2019
Report Number: P645070
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-SR4F0-75D125U930-WBMOOB-1DUDD-WW
Description: NEO-RAY CIRQUE 4-INCH DIAMETER LINEAR LED LUMINAIRE
DOWNLIGHT - WHITE BAFFLE WITH MEDIUM OPTIC - 750 LUMENS PER FOOT
UPLIGHT - BATWING OPTIC - 1250 LUMENS PER FOOT
Light Source: 3000K CCT, 90 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

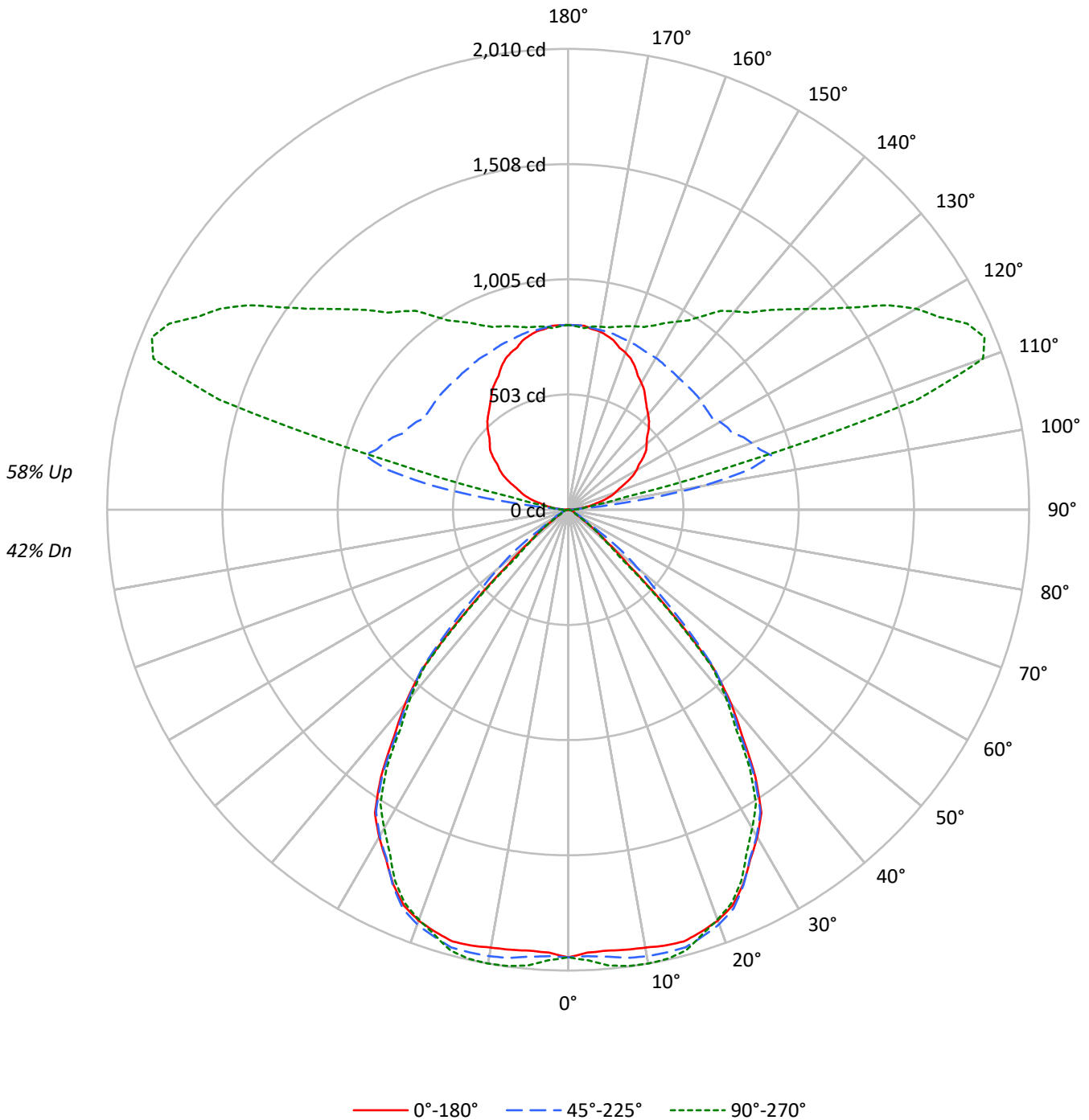
Lumens per Lamp: N/A
Luminaire Lumens: 7467.2 lumens
Efficiency: N/A
Efficacy: 113.0 lumens/watt
Spacing Criteria (0/90/45): 1.24 / 1.21 / 1.19
Luminous Opening: Rectangular (W 0.21' x L: 4' x H: 0')
CIE Type: General Diffuse

Input Watts (W): 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									
RC	80									70									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	105	105	105	105	96	96	96	96	79	79	79	63	63	63	49	49	49	42	42	42	42	42	42	42													
1	97	94	91	88	89	86	83	81	71	69	68	58	57	56	45	45	44	38	38	38	38	38	38	38													
2	90	84	79	74	82	77	73	69	64	61	59	53	51	49	42	41	40	35	35	35	35	35	35	35													
3	83	75	69	64	76	69	64	59	58	54	51	48	46	43	39	37	36	31	31	31	31	31	31	31													
4	77	68	61	55	70	62	57	52	53	49	45	44	41	39	36	34	32	28	28	28	28	28	28	28													
5	71	61	54	49	65	57	50	46	48	44	40	40	37	34	33	31	29	26	26	26	26	26	26	26													
6	66	55	48	43	61	51	45	40	44	39	36	37	34	31	31	28	26	24	24	24	24	24	24	24													
7	61	50	43	38	56	47	41	36	40	36	32	34	31	28	28	26	24	22	22	22	22	22	22	22													
8	57	46	39	34	53	43	37	32	37	32	29	32	28	25	26	24	22	20	20	20	20	20	20	20													
9	54	42	36	31	49	40	33	29	34	30	26	29	26	23	24	22	20	18	18	18	18	18	18	18													
10	50	39	32	28	46	37	31	27	32	27	24	27	24	21	23	20	19	17	17	17	17	17	17	17													

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	25220	25220	25220
5°	25030	25373	25869
10°	25435	25937	26360
15°	26069	26424	26600
20°	26212	26454	26151
25°	25711	25773	25458
30°	24581	24516	23924
35°	22442	22256	21792
40°	18642	18369	18023
45°	11709	13320	11172
50°	4491	7889	4166
55°	2119	3310	2153
60°	1026	1671	912
65°	944	987	853
70°	944	944	835
75°	953	953	808
80°	982	878	766
85°	1097	874	652

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 45°
 Vertical Angle: 45°
 Luminance: 13320 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	188.1	2.5
10°-20°	556.2	7.4
20°-30°	826.3	11.1
30°-40°	864.8	11.6
40°-50°	523.8	7.0
50°-60°	120.9	1.6
60°-70°	33.2	0.4
70°-80°	19.4	0.3
80°-90°	8.5	0.1
90°-100°	99.0	1.3
100°-110°	705.5	9.4
110°-120°	957.8	12.8
120°-130°	779.6	10.4
130°-140°	627.0	8.4
140°-150°	494.3	6.6
150°-160°	361.4	4.8
160°-170°	224.5	3.0
170°-180°	76.6	1.0
0°-30°	1570.6	21.0
0°-40°	2435.4	32.6
0°-60°	3080.2	41.2
0°-90°	3141.4	42.1
90°-120°	1762.4	23.6
90°-150°	3663.3	49.1
90°-180°	4326.0	57.9
0°-180°	7467.2	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1952	1952	1952	1952	1952	
5°	1930	1975	1957	1965	1995	185
15°	1950	2008	1976	1960	1989	549
25°	1804	1857	1808	1762	1786	826
35°	1423	1445	1411	1379	1382	875
45°	641	729	729	704	612	492
55°	94	107	147	101	96	98
65°	31	32	32	29	28	31
75°	19	19	19	18	16	20
85°	7	7	6	6	4	7
90°	0	5	10	15	15	2
95°	40	75	40	46	56	45
105°	157	241	917	1171	775	166
115°	279	338	790	1642	1920	277
125°	400	455	744	1302	1540	356
135°	496	551	750	1072	1231	382
145°	588	637	755	934	1033	369
155°	689	714	770	847	886	316
165°	765	775	790	811	826	215
175°	805	810	805	800	795	76
180°	805	805	805	805	805	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1952.5	1952.5	1952.5	1952.5	1952.5
2.5°	1933.6	1968.1	1948.9	1950.5	1966.6
5°	1930.4	1975.0	1956.9	1964.9	1995.1
7.5°	1935.7	1982.3	1971.6	1974.4	2007.4
10°	1939.2	1988.1	1977.5	1976.7	2009.8
12.5°	1947.5	1998.6	1978.6	1974.4	2006.3
15°	1949.5	2008.5	1976.0	1960.5	1989.2
17.5°	1930.4	1995.4	1951.6	1919.5	1942.5
20°	1906.9	1973.0	1924.5	1879.5	1902.5
22.5°	1870.4	1935.4	1883.4	1834.8	1859.0
25°	1804.0	1857.2	1808.4	1761.9	1786.3
27.5°	1719.9	1757.2	1715.5	1671.4	1685.2
30°	1648.1	1685.5	1643.7	1598.3	1604.0
32.5°	1568.1	1599.8	1559.0	1518.3	1522.9
35°	1423.2	1444.7	1411.4	1379.1	1382.0
37.5°	1246.8	1249.6	1227.0	1197.7	1198.2
40°	1105.6	1114.2	1089.4	1066.0	1068.9
42.5°	937.4	971.3	947.1	926.0	926.5
45°	641.0	728.7	729.2	703.6	611.6
47.5°	354.0	455.5	520.8	403.8	304.9
50°	223.5	288.2	392.6	236.1	207.3
52.5°	160.0	189.0	286.7	167.0	152.0
55°	94.1	107.0	147.0	101.3	95.6
57.5°	57.3	68.6	85.9	67.7	57.6
60°	39.7	49.8	64.7	45.3	35.3
62.5°	35.0	38.2	50.6	36.1	32.9
65°	30.9	32.3	32.3	29.4	27.9
67.5°	27.3	28.8	27.3	25.8	24.4
70°	25.0	26.4	25.0	23.5	22.1
72.5°	22.6	24.1	22.6	21.1	19.7
75°	19.1	19.1	19.1	17.6	16.2
77.5°	15.6	15.6	15.3	14.1	12.6
80°	13.2	13.2	11.8	11.7	10.3
82.5°	10.9	10.9	9.4	9.4	7.9
85°	7.4	7.4	5.9	5.8	4.4
87.5°	3.5	4.5	4.4	5.4	4.2
90°	0.0	5.0	10.1	15.2	15.2
92.5°	12.2	17.1	22.3	31.5	35.5
95°	40.5	75.2	40.5	45.8	55.7
97.5°	71.9	144.2	297.8	87.9	76.0
100°	96.2	180.4	597.6	175.9	116.5
102.5°	120.5	208.7	808.3	464.2	254.2
105°	157.0	241.2	916.7	1171.1	774.9
107.5°	193.5	256.9	875.2	1704.4	1596.4
110°	217.8	277.2	850.9	1790.9	1924.6



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	242.1	301.5	826.6	1740.3	1965.1
115°	278.6	338.0	790.1	1642.2	1919.5
117.5°	316.0	374.5	781.0	1536.0	1821.3
120°	344.4	398.9	764.8	1455.3	1752.4
122.5°	364.7	423.1	744.5	1385.8	1659.2
125°	400.1	454.6	744.5	1302.0	1539.7
127.5°	429.5	485.0	745.5	1204.7	1439.4
130°	445.7	505.1	749.6	1139.6	1362.4
132.5°	466.0	525.4	749.6	1110.3	1293.5
135°	496.3	550.8	749.6	1072.3	1230.7
137.5°	521.7	580.1	749.6	1030.2	1165.9
140°	541.9	596.4	749.6	1005.6	1129.4
142.5°	562.2	612.7	753.6	977.1	1093.0
145°	587.5	637.0	754.6	934.2	1033.2
147.5°	617.9	661.5	760.7	903.3	979.5
150°	638.2	677.8	764.8	882.7	947.1
152.5°	658.4	694.1	764.8	866.2	918.7
155°	688.8	713.6	769.8	846.7	886.3
157.5°	713.1	736.9	775.9	834.3	863.0
160°	729.3	749.1	780.0	826.1	850.9
162.5°	741.5	761.3	784.0	821.9	838.7
165°	764.8	774.7	790.1	810.7	825.6
167.5°	777.9	786.9	795.2	805.5	814.4
170°	790.1	795.1	795.2	805.4	810.4
172.5°	794.2	803.1	799.2	801.4	806.3
175°	805.3	810.2	805.3	800.1	795.2
177.5°	805.3	809.3	805.3	805.2	801.2
180°	805.3	805.3	805.3	805.3	805.3

(END OF REPORT)