

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: P645100

Luminaire Tested: OMN4DIP-SR4F0-75D150U930-WBMOOB-1DUDD-WW

Issue Date: 9/2/2020



Test Information

Test Method: LM-79-2019
Report Number: P645100
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-SR4F0-75D150U930-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 - 1500 LUMENS PER FOOT
Light Source: 3000K CCT, 90 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

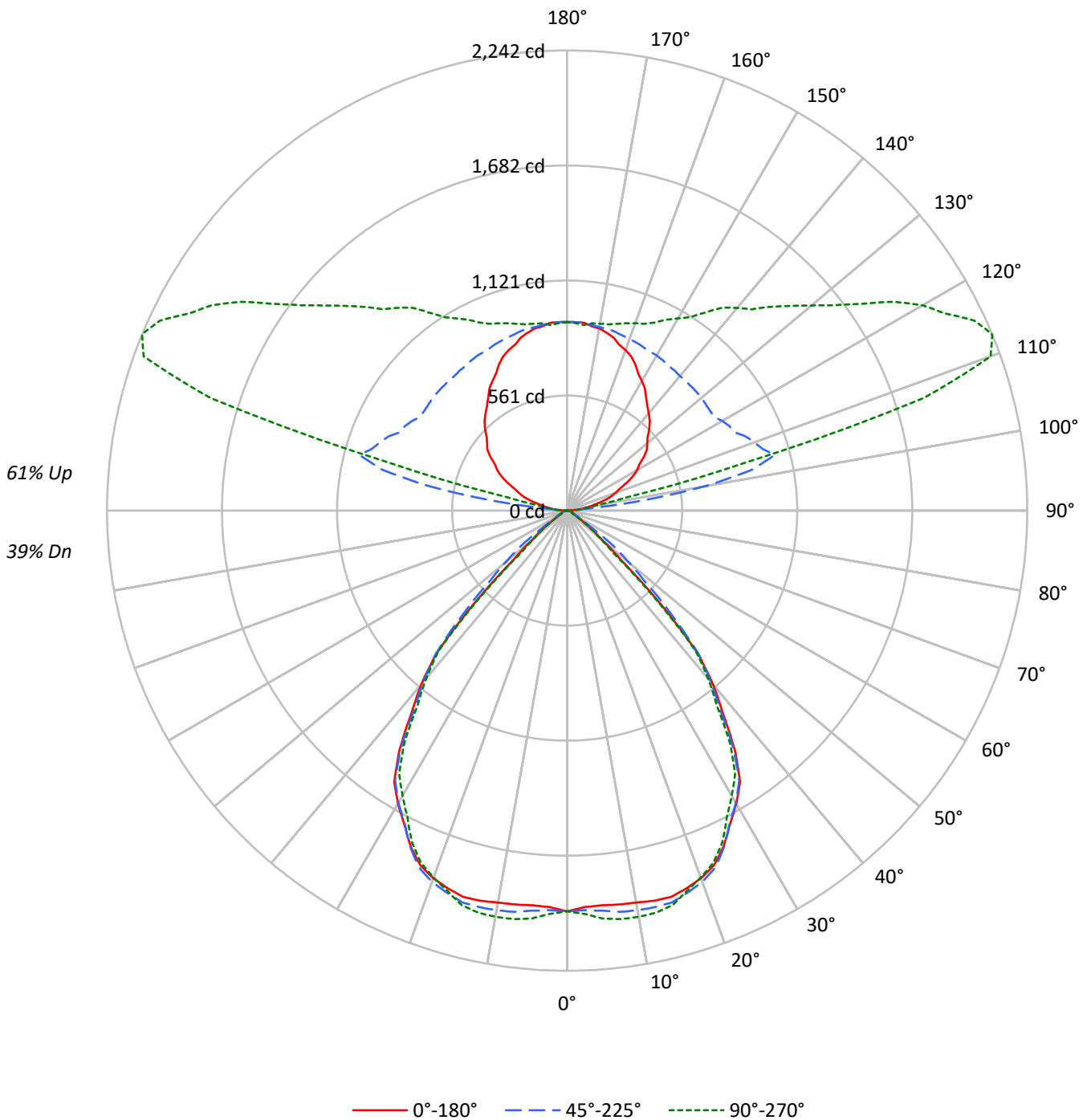
Lumens per Lamp: N/A
Luminaire Lumens: 8077.0 lumens
Efficiency: N/A
Efficacy: 105.6 lumens/watt
Spacing Criteria (0/90/45): 1.24 / 1.21 / 1.19
Luminous Opening: Rectangular (W 0.21' x L: 4' x H: 0')
CIE Type: Semi-Indirect

Input Watts (W): 76.5
Input Voltage (V): 120
Input Current (A_{in}): 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	0	
RCR																						
0	104	104	104	104	95	95	95	95	77	77	77	61	61	61	46	46	46	39				
1	97	93	90	87	88	85	82	80	70	68	66	56	54	53	43	42	41	36				
2	89	83	78	73	81	76	71	68	63	60	57	51	49	47	39	38	37	32				
3	82	74	68	63	75	68	63	58	57	53	50	46	44	41	36	35	33	29				
4	76	67	60	54	69	61	55	51	51	47	44	42	39	37	33	32	30	26				
5	70	60	53	48	64	55	49	45	47	42	39	39	35	33	31	29	27	24				
6	65	54	47	42	60	50	44	39	43	38	34	35	32	30	29	26	25	22				
7	61	50	42	37	55	46	40	35	39	34	31	33	29	27	26	24	23	20				
8	56	45	38	33	52	42	36	32	36	31	28	30	27	24	25	22	21	18				
9	53	42	35	30	48	39	33	28	33	28	25	28	24	22	23	21	19	17				
10	49	38	32	27	45	36	30	26	31	26	23	26	23	20	21	19	17	15				

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	2.3
10°-20°	556.2	6.9
20°-30°	826.3	10.2
30°-40°	864.8	10.7
40°-50°	523.8	6.5
50°-60°	120.9	1.5
60°-70°	33.2	0.4
70°-80°	19.4	0.2
80°-90°	8.8	0.1
90°-100°	113.0	1.4
100°-110°	805.0	10.0
110°-120°	1092.8	13.5
120°-130°	889.4	11.0
130°-140°	715.4	8.9
140°-150°	564.0	7.0
150°-160°	412.4	5.1
160°-170°	256.1	3.2
170°-180°	87.3	1.1
0°-30°	1570.6	19.4
0°-40°	2435.4	30.2
0°-60°	3080.2	38.1
0°-90°	3141.6	38.9
90°-120°	2010.7	24.9
90°-150°	4179.5	51.7
90°-180°	4935.0	61.1
0°-180°	8077.0	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	6	12	17	17	2
95°	46	86	46	52	64	52
105°	179	275	1046	1336	884	189
115°	318	386	901	1874	2190	315
125°	456	519	849	1486	1757	406
135°	566	628	855	1223	1404	436
145°	670	727	861	1066	1179	421
155°	786	814	878	966	1011	361
165°	872	884	901	925	942	245
175°	919	924	919	913	907	87
180°	919	919	919	919	919	

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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	4.7	4.7	5.8	4.6
90°	0.0	5.7	11.6	17.3	17.3
92.5°	13.9	19.5	25.4	35.9	40.4
95°	46.2	85.8	46.2	52.3	63.6
97.5°	82.1	164.5	339.8	100.2	86.7
100°	109.8	205.8	681.9	200.7	132.9
102.5°	137.5	238.1	922.2	529.6	290.1
105°	179.1	275.2	1045.9	1336.1	884.1
107.5°	220.7	293.1	998.5	1944.5	1821.4
110°	248.5	316.3	970.8	2043.3	2195.8



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	276.2	344.0	943.0	1985.5	2242.0
115°	317.8	385.6	901.4	1873.6	2190.0
117.5°	360.6	427.2	891.0	1752.5	2077.9
120°	392.9	455.1	872.5	1660.3	1999.3
122.5°	416.0	482.7	849.4	1581.1	1893.0
125°	456.5	518.6	849.4	1485.5	1756.7
127.5°	490.0	553.3	850.6	1374.4	1642.2
130°	508.5	576.3	855.2	1300.2	1554.4
132.5°	531.6	599.4	855.2	1266.8	1475.8
135°	566.3	628.4	855.2	1223.4	1404.2
137.5°	595.2	661.9	855.2	1175.4	1330.2
140°	618.3	680.4	855.2	1147.3	1288.6
142.5°	641.4	699.0	859.8	1114.8	1247.0
145°	670.3	726.8	861.0	1065.8	1178.8
147.5°	705.0	754.7	867.9	1030.5	1117.6
150°	728.1	773.3	872.5	1007.1	1080.6
152.5°	751.2	791.9	872.5	988.3	1048.2
155°	785.9	814.1	878.3	966.0	1011.2
157.5°	813.6	840.7	885.3	951.9	984.7
160°	832.1	854.7	889.9	942.5	970.8
162.5°	846.0	868.6	894.5	937.7	956.9
165°	872.5	883.8	901.4	924.9	941.9
167.5°	887.6	897.7	907.2	919.0	929.2
170°	901.4	907.1	907.2	918.9	924.6
172.5°	906.1	916.2	911.8	914.3	919.9
175°	918.8	924.4	918.8	912.9	907.2
177.5°	918.8	923.3	918.8	918.7	914.2
180°	918.8	918.8	918.8	918.8	918.8

(END OF REPORT)