

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: P645130

Luminaire Tested: OMN4DIP-SR4F0-75D25U930-WBMOOB-1DUDD-WW

Issue Date: 9/2/2020



Test Information

Test Method: LM-79-2019
Report Number: P645130
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-SR4F0-75D25U930-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 - 250 LUMENS PER FOOT
Light Source: 3000K CCT, 90 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

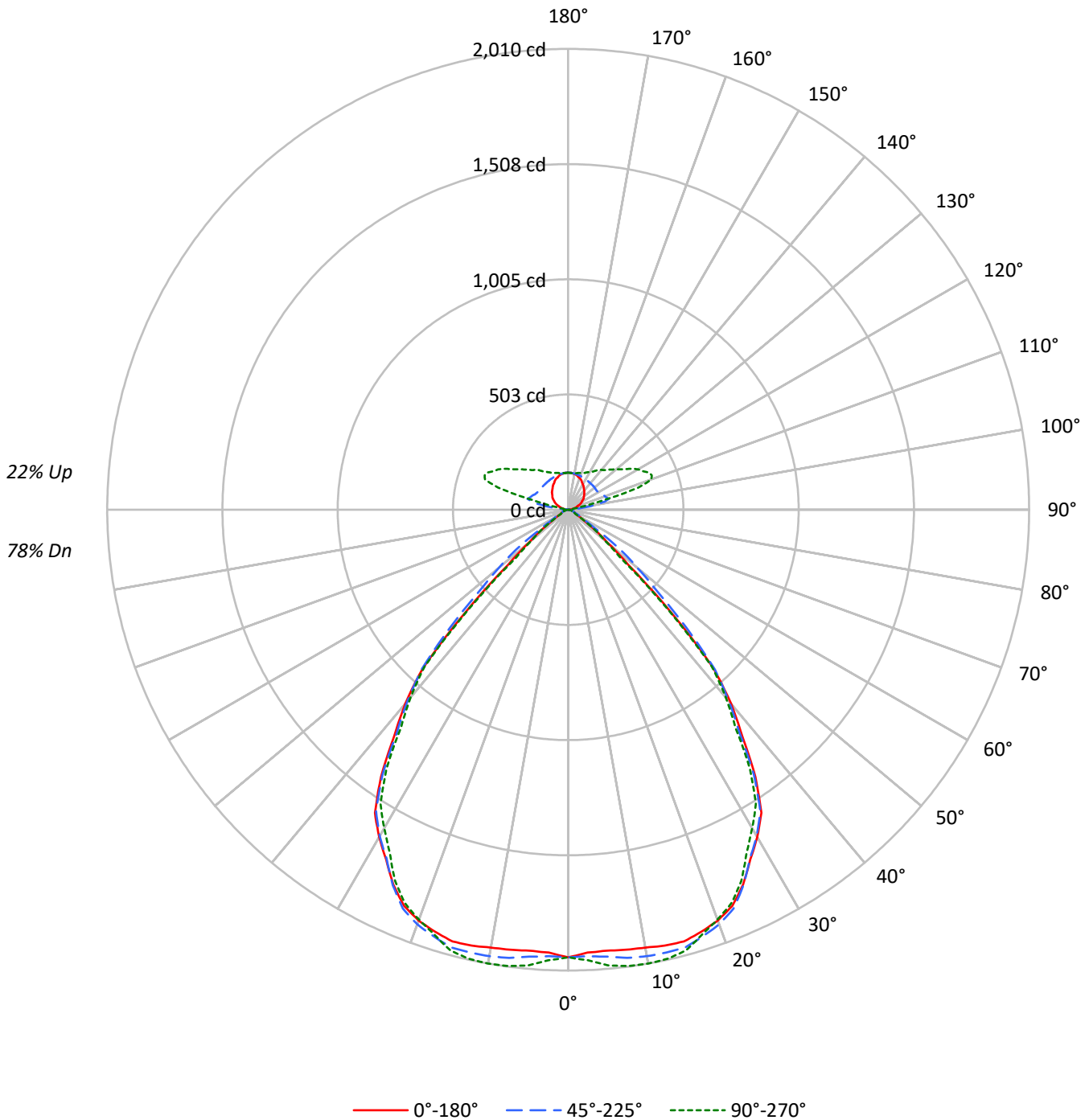
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 4007.8 lumens
Efficiency: N/A
Efficacy: 110.7 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-Direct

Input Watts (W): 36.2
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	114	114	114	114	109	109	109	109	99	99	99	90	90	90	82	82	82	78				
1	107	103	100	98	102	99	97	94	91	89	87	84	82	81	77	76	75	72				
2	100	94	89	85	95	90	86	82	83	80	77	77	75	72	71	69	68	65				
3	93	85	79	75	89	82	77	73	76	72	69	71	68	65	66	63	61	59				
4	87	78	71	66	83	75	69	65	70	65	61	66	62	58	61	58	56	53				
5	81	71	64	59	78	69	63	58	65	59	55	60	56	53	57	53	50	48				
6	76	65	58	53	73	63	57	52	59	54	50	56	51	48	53	49	46	44				
7	71	60	53	48	68	58	52	47	55	49	45	52	47	44	49	45	42	40				
8	67	55	48	44	64	54	47	43	51	45	41	48	43	40	46	42	39	37				
9	63	51	45	40	60	50	44	39	47	42	38	45	40	37	43	38	36	34				
10	59	48	41	37	57	46	40	36	44	39	35	42	37	34	40	36	33	31				

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	4.7
10°-20°	556.2	13.9
20°-30°	826.3	20.6
30°-40°	864.8	21.6
40°-50°	523.8	13.1
50°-60°	120.9	3.0
60°-70°	33.2	0.8
70°-80°	19.4	0.5
80°-90°	7.1	0.2
90°-100°	19.9	0.5
100°-110°	141.6	3.5
110°-120°	192.2	4.8
120°-130°	156.4	3.9
130°-140°	125.8	3.1
140°-150°	99.2	2.5
150°-160°	72.5	1.8
160°-170°	45.0	1.1
170°-180°	15.4	0.4
0°-30°	1570.6	39.2
0°-40°	2435.4	60.8
0°-60°	3080.2	76.9
0°-90°	3139.9	78.3
90°-120°	353.6	8.8
90°-150°	735.0	18.3
90°-180°	868.0	21.7
0°-180°	4007.8	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	1	2	3	3	1
95°	8	15	8	9	11	9
105°	32	48	184	235	156	33
115°	56	68	158	330	385	55
125°	80	91	149	261	309	71
135°	100	110	150	215	247	77
145°	118	128	151	187	207	74
155°	138	143	154	170	178	63
165°	154	155	158	163	166	43
175°	162	163	162	160	160	15
180°	162	162	162	162	162	



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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	3.7	2.8	2.9	1.8
90°	0.0	1.0	2.0	3.0	3.0
92.5°	2.4	3.4	4.5	6.3	7.1
95°	8.1	15.1	8.1	9.2	11.2
97.5°	14.4	28.9	59.8	17.6	15.2
100°	19.3	36.2	119.9	35.3	23.4
102.5°	24.2	41.9	162.2	93.1	51.0
105°	31.5	48.4	183.9	235.0	155.5
107.5°	38.8	51.5	175.6	342.0	320.3
110°	43.7	55.6	170.7	359.3	386.2



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	48.6	60.5	165.8	349.2	394.3
115°	55.9	67.8	158.5	329.5	385.2
117.5°	63.4	75.1	156.7	308.2	365.4
120°	69.1	80.0	153.5	292.0	351.6
122.5°	73.2	84.9	149.4	278.1	332.9
125°	80.3	91.2	149.4	261.2	308.9
127.5°	86.2	97.3	149.6	241.7	288.8
130°	89.4	101.4	150.4	228.7	273.4
132.5°	93.5	105.4	150.4	222.8	259.5
135°	99.6	110.5	150.4	215.1	246.9
137.5°	104.7	116.4	150.4	206.7	233.9
140°	108.7	119.7	150.4	201.8	226.6
142.5°	112.8	122.9	151.2	196.1	219.3
145°	117.9	127.8	151.4	187.4	207.3
147.5°	124.0	132.7	152.6	181.2	196.5
150°	128.0	136.0	153.5	177.1	190.0
152.5°	132.1	139.3	153.5	173.8	184.3
155°	138.2	143.2	154.5	169.9	177.8
157.5°	143.1	147.9	155.7	167.4	173.2
160°	146.3	150.3	156.5	165.8	170.7
162.5°	148.8	152.8	157.3	164.9	168.3
165°	153.5	155.4	158.5	162.7	165.6
167.5°	156.1	157.9	159.5	161.6	163.4
170°	158.5	159.5	159.5	161.6	162.6
172.5°	159.3	161.1	160.4	160.8	161.8
175°	161.6	162.6	161.6	160.5	159.5
177.5°	161.6	162.4	161.6	161.6	160.8
180°	161.6	161.6	161.6	161.6	161.6

(END OF REPORT)