

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: P645041

Luminaire Tested: OMN4DIP-SR4F0-75D100U935-BBMOOB-1DUDD-WW

Issue Date: 9/2/2020



Test Information

Test Method: LM-79-2019
Report Number: P645041
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-SR4F0-75D100U935-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 - 1000 LUMENS PER FOOT
Light Source: 3500K CCT, 90 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

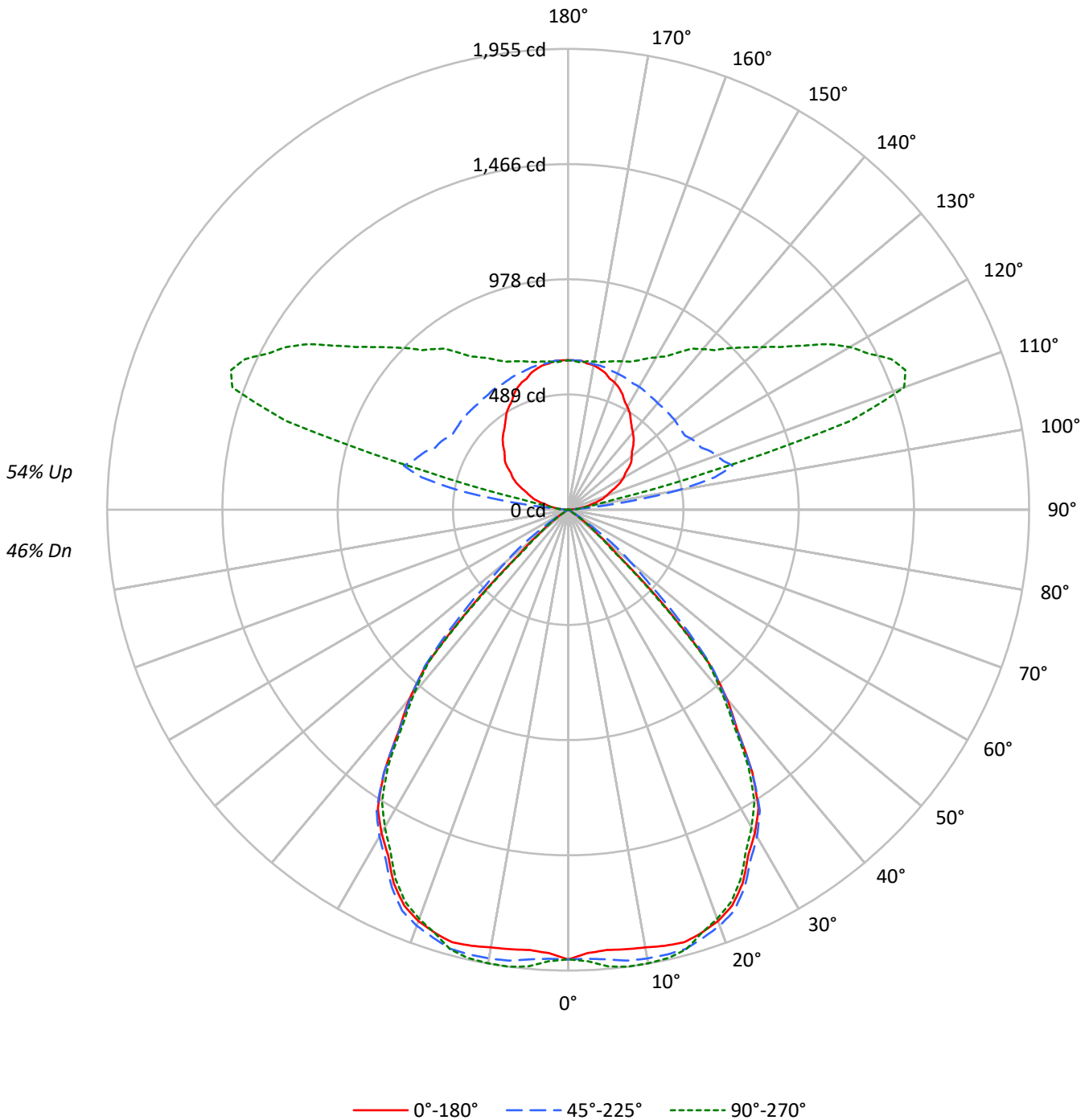
Lumens per Lamp: N/A
Luminaire Lumens: 6338.4 lumens
Efficiency: N/A
Efficacy: 111.4 lumens/watt
Spacing Criteria (0/90/45): 1.22 / 1.21 / 1.18
Luminous Opening: Rectangular (W 0.21' x L: 4' x H: 0')
CIE Type: General Diffuse

Input Watts (W): 56.9
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

TEST NUMBER: P645041

CATALOG NUMBER: OMN4DIP-SR4F0-75D100U935-BBMOOB-1DUDD-WW

Luminous Intensity Polar Plot





TEST NUMBER: P645041

CATALOG NUMBER: OMN4DIP-SR4F0-75D100U935-BBMOOB-1DUDD-WW

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	106	106	106	106	98	98	98	98	81	81	81	66	66	66	53	53	53	46				
1	99	95	92	89	91	88	85	83	74	72	70	61	60	59	49	49	48	43				
2	91	85	80	76	84	79	75	71	67	64	61	56	54	52	46	45	43	39				
3	85	77	71	66	78	71	66	62	61	57	54	51	49	46	42	41	39	35				
4	79	69	63	57	72	65	59	54	55	51	48	47	44	42	39	37	36	32				
5	73	63	56	51	67	59	52	48	51	46	43	43	40	37	36	34	32	29				
6	68	57	50	45	63	53	47	43	46	42	38	40	36	34	34	31	29	27				
7	63	52	45	40	58	49	43	38	43	38	34	37	33	31	31	29	27	24				
8	59	48	41	36	55	45	39	34	39	35	31	34	30	28	29	27	25	22				
9	55	44	37	33	51	41	35	31	36	32	28	32	28	25	27	25	23	21				
10	52	41	34	30	48	38	32	28	34	29	26	29	26	23	25	23	21	19				

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



TEST NUMBER: P645041

CATALOG NUMBER: OMN4DIP-SR4F0-75D100U935-BBMOOB-1DUDD-WW

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	183.5	2.9
10°-20°	543.1	8.6
20°-30°	803.6	12.7
30°-40°	830.7	13.1
40°-50°	483.3	7.6
50°-60°	81.9	1.3
60°-70°	3.2	0.1
70°-80°	0.5	0.0
80°-90°	1.9	0.0
90°-100°	78.0	1.2
100°-110°	555.6	8.8
110°-120°	754.3	11.9
120°-130°	613.9	9.7
130°-140°	493.8	7.8
140°-150°	389.3	6.1
150°-160°	284.7	4.5
160°-170°	176.8	2.8
170°-180°	60.3	1.0
0°-30°	1530.2	24.1
0°-40°	2360.9	37.2
0°-60°	2926.1	46.2
0°-90°	2931.7	46.3
90°-120°	1387.9	21.9
90°-150°	2884.9	45.5
90°-180°	3407.0	53.8
0°-180°	6338.4	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	4	8	12	12	1
95°	32	59	32	36	44	36
105°	124	190	722	922	610	130
115°	219	266	622	1293	1512	218
125°	315	358	586	1025	1212	280
135°	391	434	590	844	969	301
145°	463	502	594	736	814	291
155°	542	562	606	667	698	249
165°	602	610	622	638	650	169
175°	634	638	634	630	626	60
180°	634	634	634	634	634	



TEST NUMBER: P645041

CATALOG NUMBER: OMN4DIP-SR4F0-75D100U935-BBMOOB-1DUDD-WW

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	2.0	1.6	2.4	2.4
90°	0.0	3.9	8.0	12.0	12.0
92.5°	9.6	13.5	17.5	24.8	27.9
95°	31.9	59.2	31.9	36.1	43.9
97.5°	56.6	113.6	234.5	69.2	59.8
100°	75.8	142.1	470.7	138.5	91.7
102.5°	94.9	164.3	636.6	365.6	200.2
105°	123.6	189.9	721.9	922.3	610.3
107.5°	152.4	202.3	689.2	1342.2	1257.2
110°	171.5	218.3	670.1	1410.4	1515.7



TEST NUMBER: P645041

CATALOG NUMBER: OMN4DIP-SR4F0-75D100U935-BBMOOB-1DUDD-WW

CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	190.7	237.5	650.9	1370.5	1547.6
115°	219.4	266.2	622.2	1293.3	1511.7
117.5°	248.9	294.9	615.0	1209.7	1434.3
120°	271.2	314.1	602.3	1146.1	1380.1
122.5°	287.2	333.2	586.3	1091.4	1306.7
125°	315.1	358.0	586.3	1025.3	1212.5
127.5°	338.2	381.9	587.1	948.7	1133.6
130°	351.0	397.8	590.3	897.4	1072.9
132.5°	367.0	413.8	590.3	874.4	1018.7
135°	390.9	433.8	590.3	844.4	969.2
137.5°	410.8	456.8	590.3	811.3	918.2
140°	426.8	469.7	590.3	792.0	889.5
142.5°	442.7	482.5	593.5	769.5	860.7
145°	462.7	501.7	594.3	735.7	813.7
147.5°	486.6	520.9	599.1	711.3	771.4
150°	502.6	533.8	602.3	695.2	745.9
152.5°	518.5	546.6	602.3	682.2	723.5
155°	542.5	562.0	606.3	666.8	698.0
157.5°	561.6	580.3	611.1	657.0	679.7
160°	574.4	590.0	614.2	650.6	670.1
162.5°	583.9	599.5	617.4	647.3	660.5
165°	602.3	610.1	622.2	638.4	650.1
167.5°	612.7	619.7	626.2	634.4	641.4
170°	622.2	626.1	626.2	634.3	638.2
172.5°	625.4	632.4	629.4	631.1	635.0
175°	634.2	638.1	634.2	630.1	626.2
177.5°	634.2	637.3	634.2	634.1	631.0
180°	634.2	634.2	634.2	634.2	634.2

(END OF REPORT)