

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: P645191

Luminaire Tested: OMN4DIP-SR4F0-75D75U935-BBMOOB-1DUDD-WW

Issue Date: 9/2/2020



Test Information

Test Method: LM-79-2019
Report Number: P645191
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-SR4F0-75D75U935-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 - 750 LUMENS PER FOOT
Light Source: 3500K CCT, 90 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

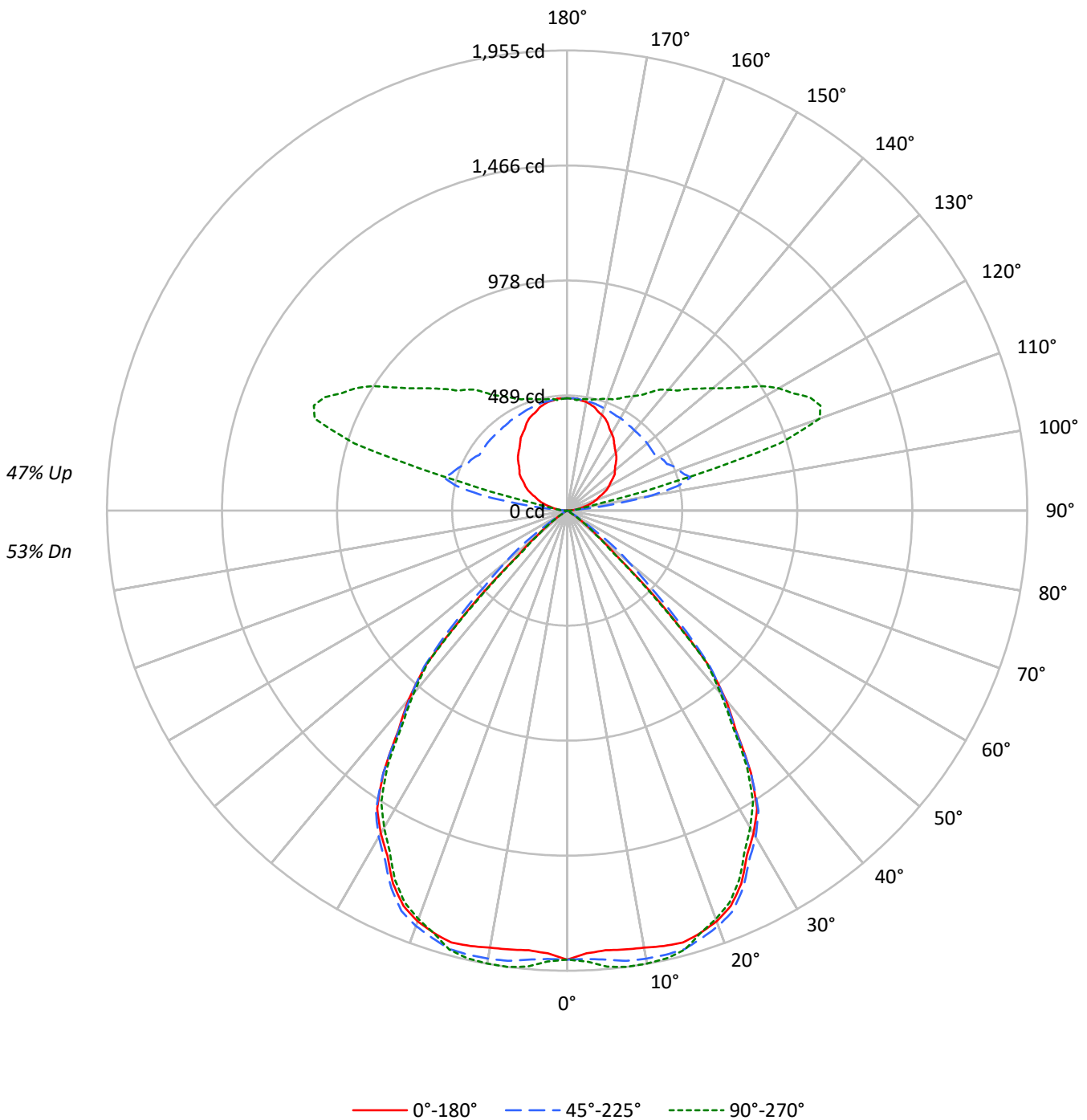
Lumens per Lamp: N/A
Luminaire Lumens: 5496.0 lumens
Efficiency: N/A
Efficacy: 112.9 lumens/watt
Spacing Criteria (0/90/45): 1.22 / 1.21 / 1.18
Luminous Opening: Rectangular (W 0.21' x L: 4' x H: 0')
CIE Type: General Diffuse

Input Watts (W): 48.7
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	108	108	108	108	100	100	100	100	85	85	85	72	72	72	59	59	59	53
1	101	97	94	91	93	90	88	85	78	76	74	66	65	64	56	55	54	49
2	93	87	82	78	87	82	77	74	71	68	65	61	59	57	52	50	49	45
3	87	79	73	68	81	74	69	64	65	61	57	56	53	51	48	46	44	41
4	81	71	65	60	75	67	61	57	59	55	51	51	48	46	44	42	40	37
5	75	65	58	53	70	61	55	50	54	49	46	47	44	41	41	39	37	34
6	70	59	52	47	65	56	50	45	50	45	41	44	40	37	38	35	33	31
7	65	54	47	42	61	51	45	40	46	41	37	40	37	34	35	33	31	28
8	61	50	43	38	57	47	41	37	42	37	34	37	34	31	33	30	28	26
9	57	46	39	34	53	43	37	33	39	34	31	35	31	28	31	28	26	24
10	53	42	36	31	50	40	34	30	36	31	28	32	29	26	29	26	24	22

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	3.3
10°-20°	543.1	9.9
20°-30°	803.6	14.6
30°-40°	830.7	15.1
40°-50°	483.3	8.8
50°-60°	81.9	1.5
60°-70°	3.2	0.1
70°-80°	0.5	0.0
80°-90°	1.5	0.0
90°-100°	58.7	1.1
100°-110°	418.3	7.6
110°-120°	567.9	10.3
120°-130°	462.2	8.4
130°-140°	371.7	6.8
140°-150°	293.1	5.3
150°-160°	214.3	3.9
160°-170°	133.1	2.4
170°-180°	45.4	0.8
0°-30°	1530.2	27.8
0°-40°	2360.9	43.0
0°-60°	2926.1	53.2
0°-90°	2931.3	53.3
90°-120°	1044.9	19.0
90°-150°	2171.9	39.5
90°-180°	2565.0	46.7
0°-180°	5496.0	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	3	6	9	9	1
95°	24	45	24	27	33	27
105°	93	143	544	694	459	98
115°	165	200	468	974	1138	164
125°	237	270	441	772	913	211
135°	294	327	444	636	730	226
145°	348	378	447	554	613	219
155°	408	423	456	502	526	187
165°	453	459	468	481	490	127
175°	478	480	478	474	471	45
180°	478	478	478	478	478	



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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	1.8	1.2	1.8	1.8
90°	0.0	2.9	6.0	9.0	9.0
92.5°	7.2	10.1	13.2	18.7	21.0
95°	24.0	44.6	24.0	27.2	33.0
97.5°	42.6	85.5	176.6	52.1	45.0
100°	57.1	107.0	354.3	104.3	69.1
102.5°	71.5	123.7	479.3	275.2	150.7
105°	93.1	143.0	543.5	694.3	459.4
107.5°	114.7	152.3	518.9	1010.5	946.5
110°	129.1	164.4	504.5	1061.8	1141.1



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	143.5	178.8	490.1	1031.8	1165.1
115°	165.2	200.4	468.4	973.7	1138.1
117.5°	187.4	222.0	463.0	910.7	1079.8
120°	204.2	236.5	453.4	862.8	1039.0
122.5°	216.2	250.9	441.4	821.7	983.7
125°	237.2	269.5	441.4	771.9	912.9
127.5°	254.6	287.5	442.0	714.2	853.4
130°	264.3	299.5	444.4	675.6	807.8
132.5°	276.3	311.5	444.4	658.3	766.9
135°	294.3	326.6	444.4	635.7	729.7
137.5°	309.3	343.9	444.4	610.8	691.3
140°	321.3	353.6	444.4	596.2	669.6
142.5°	333.3	363.3	446.8	579.3	648.0
145°	348.3	377.7	447.4	553.9	612.6
147.5°	366.3	392.2	451.0	535.5	580.8
150°	378.4	401.8	453.4	523.4	561.5
152.5°	390.4	411.5	453.4	513.6	544.7
155°	408.4	423.1	456.4	502.0	525.5
157.5°	422.8	436.9	460.0	494.7	511.7
160°	432.4	444.2	462.4	489.8	504.5
162.5°	439.6	451.4	464.8	487.3	497.3
165°	453.4	459.3	468.4	480.7	489.5
167.5°	461.2	466.5	471.4	477.6	482.9
170°	468.4	471.4	471.4	477.5	480.5
172.5°	470.8	476.1	473.8	475.1	478.1
175°	477.5	480.4	477.5	474.4	471.4
177.5°	477.5	479.8	477.5	477.4	475.1
180°	477.5	477.5	477.5	477.5	477.5

(END OF REPORT)