

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: P645052

Luminaire Tested: OMN4DIP-SR4F0-75D100U940-WBMOOB-1DUDD-WW

Issue Date: 9/2/2020



Test Information

Test Method: LM-79-2019
Report Number: P645052
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-SR4F0-75D100U940-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 - 1000 LUMENS PER FOOT
Light Source: 4000K CCT, 90 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

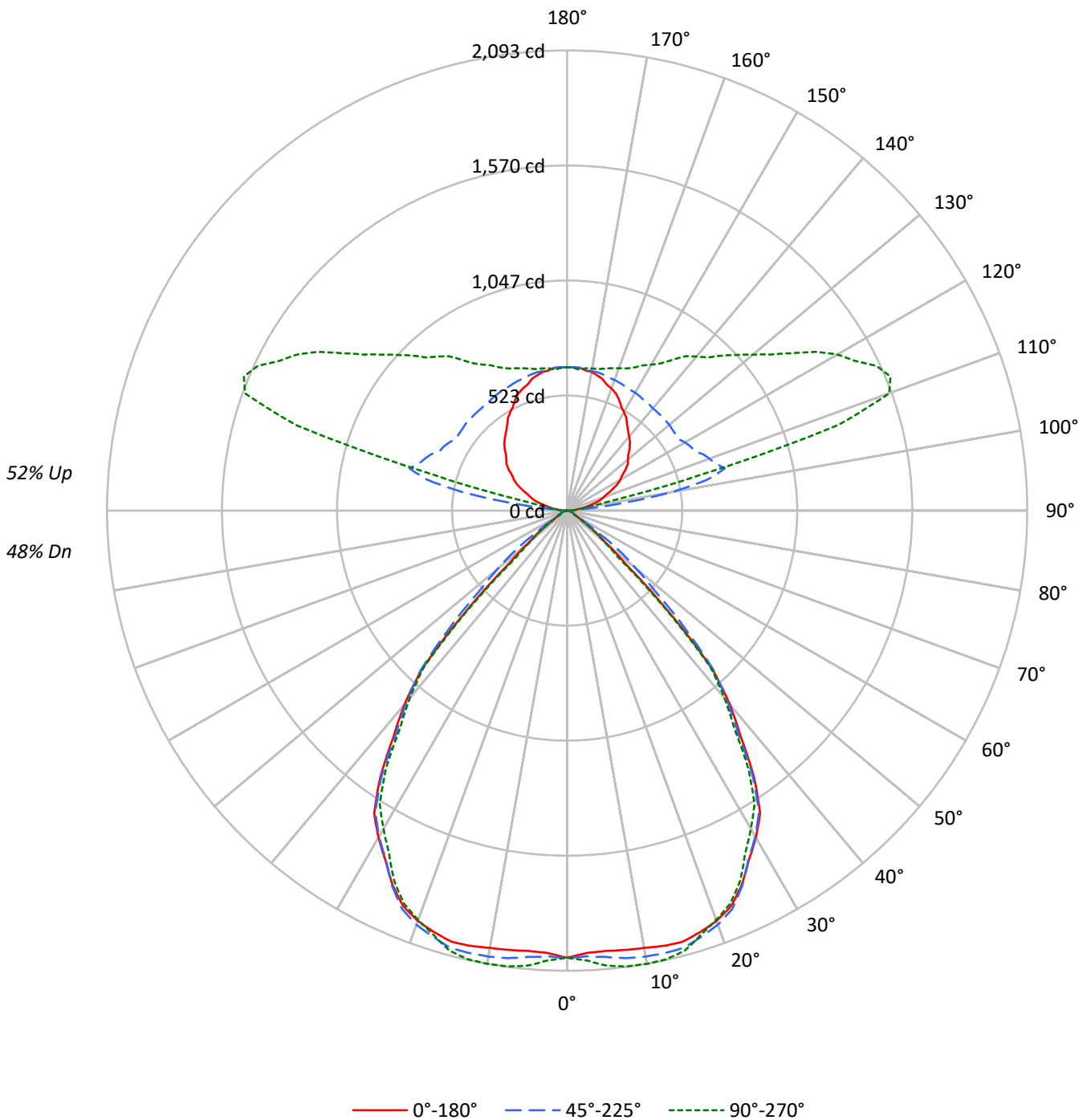
Lumens per Lamp: N/A
Luminaire Lumens: 6774.2 lumens
Efficiency: N/A
Efficacy: 119.1 lumens/watt
Spacing Criteria (0/90/45): 1.24 / 1.21 / 1.19
Luminous Opening: Rectangular (W 0.21' x L: 4' x H: 0')
CIE Type: General Diffuse

Input Watts (W): 56.9
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	0
RCR																				
0	107	107	107	107	98	98	98	98	82	82	82		68	68	68		55	55	55	48
1	99	95	92	89	91	88	85	83	75	73	71		62	61	60		51	50	49	44
2	92	85	80	76	85	79	75	71	68	65	62		57	55	53		47	46	44	40
3	85	77	71	66	78	71	66	62	61	57	54		52	49	47		43	42	40	36
4	79	69	62	57	73	65	59	54	56	51	48		48	45	42		40	38	36	33
5	73	63	56	50	67	59	52	48	51	46	43		44	40	38		37	35	33	30
6	68	57	50	45	63	53	47	42	47	42	38		40	37	34		34	32	30	27
7	63	52	45	40	58	49	43	38	43	38	34		37	33	31		32	29	27	25
8	59	48	41	36	55	45	39	34	39	35	31		34	31	28		30	27	25	23
9	55	44	37	32	51	41	35	31	36	32	28		32	28	26		28	25	23	21
10	52	41	34	29	48	38	32	28	34	29	26		30	26	23		26	23	21	19

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	26266	26266	26266
5°	26068	26426	26942
10°	26490	27012	27454
15°	27151	27520	27705
20°	27299	27552	27236
25°	26777	26842	26514
30°	25601	25533	24917
35°	23372	23180	22697
40°	19416	19131	18770
45°	12195	13874	11636
50°	4676	8215	4338
55°	2207	3448	2241
60°	1067	1741	948
65°	984	1030	889
70°	982	982	869
75°	993	993	838
80°	1027	907	796
85°	1141	904	682

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 45°
 Vertical Angle: 45°
 Luminance: 13874 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	195.9	2.9
10°-20°	579.3	8.6
20°-30°	860.6	12.7
30°-40°	900.7	13.3
40°-50°	545.6	8.1
50°-60°	125.9	1.9
60°-70°	34.6	0.5
70°-80°	20.3	0.3
80°-90°	8.5	0.1
90°-100°	80.2	1.2
100°-110°	571.3	8.4
110°-120°	775.6	11.4
120°-130°	631.3	9.3
130°-140°	507.7	7.5
140°-150°	400.3	5.9
150°-160°	292.7	4.3
160°-170°	181.8	2.7
170°-180°	62.0	0.9
0°-30°	1635.8	24.1
0°-40°	2536.5	37.4
0°-60°	3207.9	47.4
0°-90°	3271.3	48.3
90°-120°	1427.1	21.1
90°-150°	2966.4	43.8
90°-180°	3503.0	51.7
0°-180°	6774.2	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2034	2034	2034	2034	2034	
5°	2010	2057	2038	2046	2078	192
15°	2030	2092	2058	2042	2072	572
25°	1879	1934	1883	1835	1860	860
35°	1482	1505	1470	1436	1439	911
45°	668	759	760	733	637	513
55°	98	112	153	106	100	102
65°	32	34	34	31	29	32
75°	20	20	20	18	17	21
85°	8	8	6	6	5	8
90°	0	4	8	12	12	2
95°	33	61	33	37	45	37
105°	127	195	742	948	628	134
115°	226	274	640	1330	1554	224
125°	324	368	603	1054	1247	288
135°	402	446	607	868	997	309
145°	476	516	611	756	837	299
155°	558	578	623	686	718	256
165°	619	627	640	656	668	174
175°	652	656	652	648	644	62
180°	652	652	652	652	652	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2033.5	2033.5	2033.5	2033.5	2033.5
2.5°	2013.9	2049.8	2029.8	2031.4	2048.2
5°	2010.5	2056.9	2038.1	2046.4	2077.9
7.5°	2016.0	2064.5	2053.4	2056.3	2090.7
10°	2019.7	2070.6	2059.5	2058.8	2093.2
12.5°	2028.3	2081.6	2060.7	2056.3	2089.5
15°	2030.4	2091.8	2058.0	2041.8	2071.8
17.5°	2010.5	2078.2	2032.6	1999.1	2023.1
20°	1986.0	2054.9	2004.4	1957.5	1981.4
22.5°	1948.0	2015.7	1961.5	1910.9	1936.1
25°	1878.8	1934.2	1883.4	1835.0	1860.4
27.5°	1791.2	1830.2	1786.6	1740.7	1755.1
30°	1716.5	1755.4	1711.9	1664.6	1670.6
32.5°	1633.2	1666.1	1623.7	1581.3	1586.0
35°	1482.2	1504.7	1470.0	1436.4	1439.4
37.5°	1298.5	1301.5	1278.0	1247.4	1248.0
40°	1151.5	1160.5	1134.6	1110.2	1113.2
42.5°	976.3	1011.6	986.4	964.4	965.0
45°	667.6	758.9	759.5	732.8	637.0
47.5°	368.7	474.4	542.4	420.6	317.6
50°	232.7	300.1	408.8	245.8	215.9
52.5°	166.6	196.8	298.6	173.9	158.3
55°	98.0	111.5	153.1	105.5	99.5
57.5°	59.7	71.4	89.4	70.5	60.0
60°	41.3	51.8	67.4	47.2	36.7
62.5°	36.4	39.7	52.7	37.6	34.3
65°	32.2	33.7	33.7	30.6	29.1
67.5°	28.5	30.0	28.5	26.9	25.4
70°	26.0	27.5	26.0	24.5	23.0
72.5°	23.6	25.1	23.6	22.0	20.5
75°	19.9	19.9	19.9	18.3	16.8
77.5°	16.2	16.2	15.9	14.7	13.2
80°	13.8	13.8	12.2	12.2	10.7
82.5°	11.3	11.3	9.8	9.8	8.3
85°	7.7	7.7	6.1	6.1	4.6
87.5°	3.7	4.5	4.1	4.9	3.7
90°	0.0	4.0	8.2	12.3	12.3
92.5°	9.8	13.9	18.0	25.5	28.7
95°	32.8	60.9	32.8	37.1	45.1
97.5°	58.2	116.8	241.2	71.1	61.5
100°	77.9	146.1	483.9	142.5	94.3
102.5°	97.6	169.0	654.6	375.9	205.9
105°	127.1	195.3	742.3	948.3	627.5
107.5°	156.7	208.0	708.7	1380.1	1292.7
110°	176.4	224.5	689.0	1450.2	1558.5



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	196.0	244.2	669.3	1409.2	1591.3
115°	225.6	273.7	639.8	1329.8	1554.4
117.5°	255.9	303.2	632.4	1243.8	1474.8
120°	278.9	323.0	619.3	1178.4	1419.0
122.5°	295.3	342.6	602.9	1122.2	1343.6
125°	324.0	368.1	602.9	1054.3	1246.8
127.5°	347.8	392.7	603.7	975.5	1165.6
130°	360.9	409.0	607.0	922.8	1103.2
132.5°	377.3	425.4	607.0	899.1	1047.5
135°	401.9	446.0	607.0	868.3	996.6
137.5°	422.4	469.7	607.0	834.2	944.1
140°	438.8	482.9	607.0	814.3	914.6
142.5°	455.2	496.1	610.3	791.2	885.1
145°	475.7	515.8	611.1	756.5	836.7
147.5°	500.4	535.6	616.0	731.4	793.2
150°	516.8	548.8	619.3	714.8	766.9
152.5°	533.2	562.0	619.3	701.5	744.0
155°	557.8	577.8	623.4	685.6	717.7
157.5°	577.5	596.7	628.3	675.6	698.9
160°	590.6	606.6	631.6	669.0	689.0
162.5°	600.4	616.5	634.9	665.5	679.2
165°	619.3	627.3	639.8	656.5	668.5
167.5°	630.0	637.2	643.9	652.3	659.5
170°	639.8	643.8	643.9	652.2	656.2
172.5°	643.1	650.3	647.2	648.9	652.9
175°	652.1	656.1	652.1	647.9	643.9
177.5°	652.1	655.3	652.1	652.0	648.8
180°	652.1	652.1	652.1	652.1	652.1

(END OF REPORT)