

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: P645172

Luminaire Tested: OMN4DIP-SR4F0-75D50U940-WBMOOB-1DUDD-WW

Issue Date: 9/2/2020



Test Information

Test Method: LM-79-2019
Report Number: P645172
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-SR4F0-75D50U940-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 - 500 LUMENS PER FOOT
Light Source: 4000K CCT, 90 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

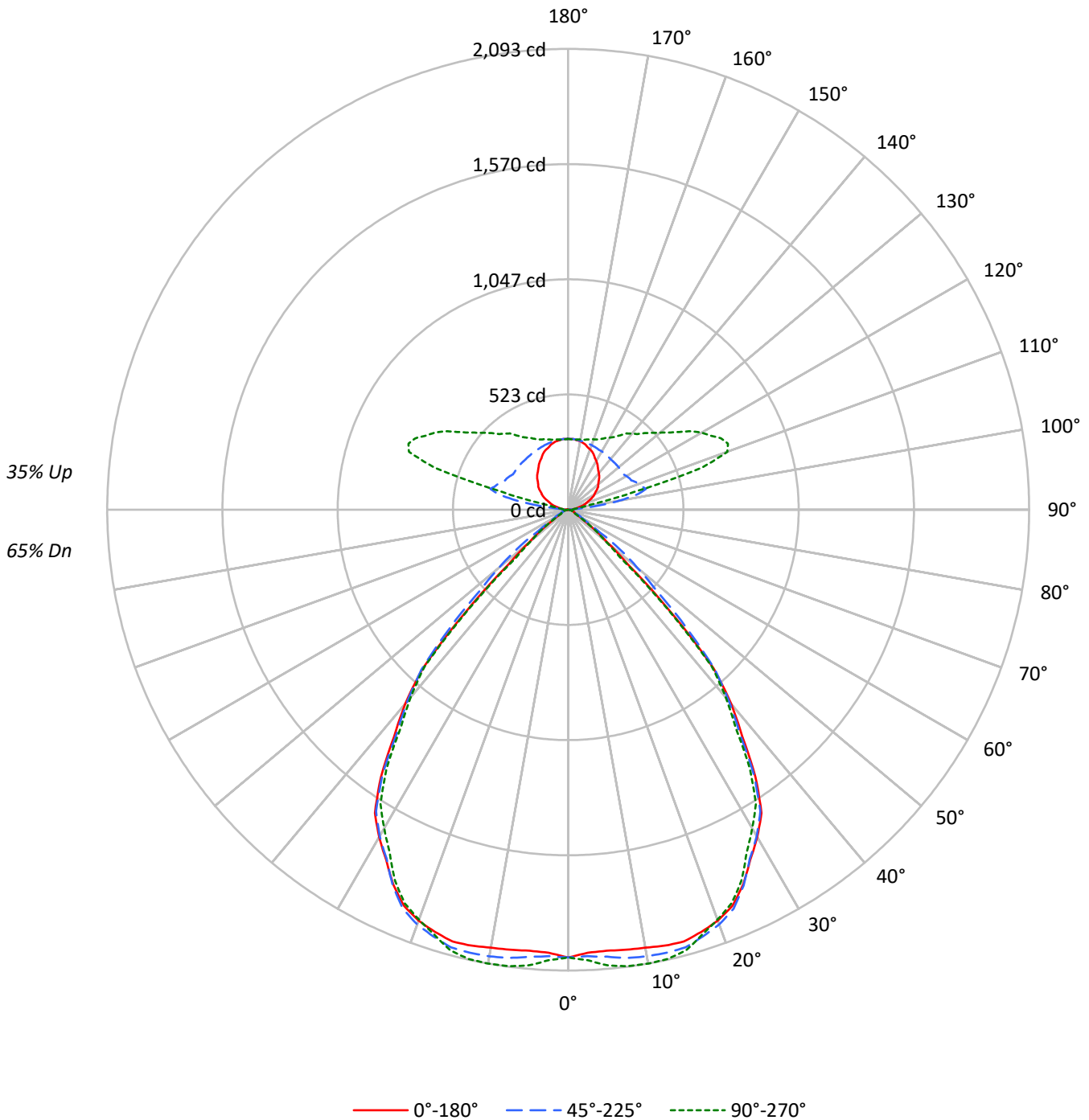
Lumens per Lamp: N/A
Luminaire Lumens: 4998.9 lumens
Efficiency: N/A
Efficacy: 117.6 lumens/watt
Spacing Criteria (0/90/45): 1.24 / 1.21 / 1.19
Luminous Opening: Rectangular (W 0.21' x L: 4' x H: 0')
CIE Type: Semi-Direct

Input Watts (W): 42.5
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										
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	50	30	10	0														
RCR																																						
0	111	111	111	111	104	104	104	104	92	92	92	81	81	81	70	70	70	65																				
1	104	100	97	94	97	94	92	89	84	82	80	75	73	72	66	65	64	60																				
2	96	90	85	81	91	86	81	77	77	73	71	68	66	64	61	59	58	54																				
3	90	82	76	71	85	78	72	68	70	66	62	63	60	57	56	54	52	49																				
4	83	74	67	62	79	71	65	60	64	59	56	58	54	51	52	49	47	44																				
5	78	68	60	55	73	64	58	53	59	54	50	53	49	46	48	45	43	40																				
6	72	62	55	49	68	59	53	48	54	49	45	49	45	42	45	42	39	37																				
7	68	57	50	45	64	54	48	43	50	44	41	46	41	38	42	38	36	33																				
8	63	52	45	40	60	50	44	39	46	41	37	42	38	35	39	35	33	31																				
9	59	48	41	37	56	46	40	36	43	37	34	39	35	32	36	33	30	28																				
10	56	45	38	34	53	43	37	33	40	35	31	37	32	29	34	30	28	26																				

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	3.9
10°-20°	579.3	11.6
20°-30°	860.6	17.2
30°-40°	900.7	18.0
40°-50°	545.6	10.9
50°-60°	125.9	2.5
60°-70°	34.6	0.7
70°-80°	20.3	0.4
80°-90°	7.7	0.2
90°-100°	39.6	0.8
100°-110°	281.9	5.6
110°-120°	382.7	7.7
120°-130°	311.5	6.2
130°-140°	250.5	5.0
140°-150°	197.5	4.0
150°-160°	144.4	2.9
160°-170°	89.7	1.8
170°-180°	30.6	0.6
0°-30°	1635.8	32.7
0°-40°	2536.5	50.7
0°-60°	3207.9	64.2
0°-90°	3270.5	65.4
90°-120°	704.2	14.1
90°-150°	1463.7	29.3
90°-180°	1728.0	34.6
0°-180°	4998.9	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	2	4	6	6	1
95°	16	30	16	18	22	18
105°	63	96	366	468	310	66
115°	111	135	316	656	767	110
125°	160	182	298	520	615	142
135°	198	220	300	428	492	153
145°	235	254	302	373	413	147
155°	275	285	308	338	354	126
165°	306	310	316	324	330	86
175°	322	324	322	320	318	30
180°	322	322	322	322	322	

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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	4.1	3.3	3.6	2.4
90°	0.0	2.0	4.0	6.1	6.1
92.5°	4.9	6.8	8.9	12.6	14.2
95°	16.2	30.0	16.2	18.3	22.3
97.5°	28.7	57.6	119.0	35.1	30.4
100°	38.4	72.1	238.8	70.3	46.5
102.5°	48.2	83.4	323.0	185.5	101.6
105°	62.7	96.4	366.3	467.9	309.6
107.5°	77.3	102.6	349.7	681.0	637.8
110°	87.0	110.8	340.0	715.5	769.0



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	96.7	120.5	330.2	695.3	785.1
115°	111.3	135.0	315.7	656.1	766.9
117.5°	126.3	149.6	312.0	613.7	727.7
120°	137.6	159.4	305.6	581.4	700.2
122.5°	145.7	169.0	297.5	553.7	662.9
125°	159.9	181.6	297.5	520.2	615.2
127.5°	171.6	193.8	297.9	481.3	575.1
130°	178.1	201.8	299.5	455.3	544.3
132.5°	186.2	209.9	299.5	443.6	516.8
135°	198.3	220.1	299.5	428.4	491.7
137.5°	208.4	231.8	299.5	411.6	465.8
140°	216.5	238.3	299.5	401.8	451.3
142.5°	224.6	244.8	301.1	390.4	436.7
145°	234.7	254.5	301.5	373.2	412.8
147.5°	246.9	264.3	303.9	360.9	391.4
150°	255.0	270.8	305.6	352.7	378.4
152.5°	263.1	277.3	305.6	346.1	367.1
155°	275.2	285.1	307.6	338.3	354.1
157.5°	284.9	294.4	310.0	333.3	344.8
160°	291.4	299.3	311.6	330.1	340.0
162.5°	296.2	304.2	313.2	328.4	335.1
165°	305.6	309.5	315.7	323.9	329.8
167.5°	310.8	314.4	317.7	321.8	325.4
170°	315.7	317.7	317.7	321.8	323.8
172.5°	317.3	320.9	319.3	320.2	322.2
175°	321.7	323.7	321.7	319.7	317.7
177.5°	321.7	323.3	321.7	321.7	320.1
180°	321.7	321.7	321.7	321.7	321.7

(END OF REPORT)