

Signify Classified - Internal
Cooper Lighting Solutions Photometric Lab
1121 Highway 74 South
Peachtree City, GA 30269



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: P644247

Luminaire Tested: CRQ4DIP-SR4F0-125D100U840-FLLFLL-1DUDD-WW

Issue Date: 2/20/2023



Test Information

Test Method: LM-79-2019
Report Number: P644247
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2206-689-28, G2-2206-689-14)
Test Lab: INNOVATION CENTER
Issue Date: 2/20/2023
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: NEO-RAY
Catalog Number: CRQ4DIP-SR4F0-125D100U840-FLLFLL-1DUDD-WW
Description: NEO-RAY CIRQUE SUSPENDED LED LUMINAIRE
DOWNLIGHT - CURVED FROSTED LENS - 1250 LUMENS PER FOOT
UPLIGHT - CURVED FROSTED LENS - 1000 LUMENS PER FOOT
Light Source: 4000K CCT, 80 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

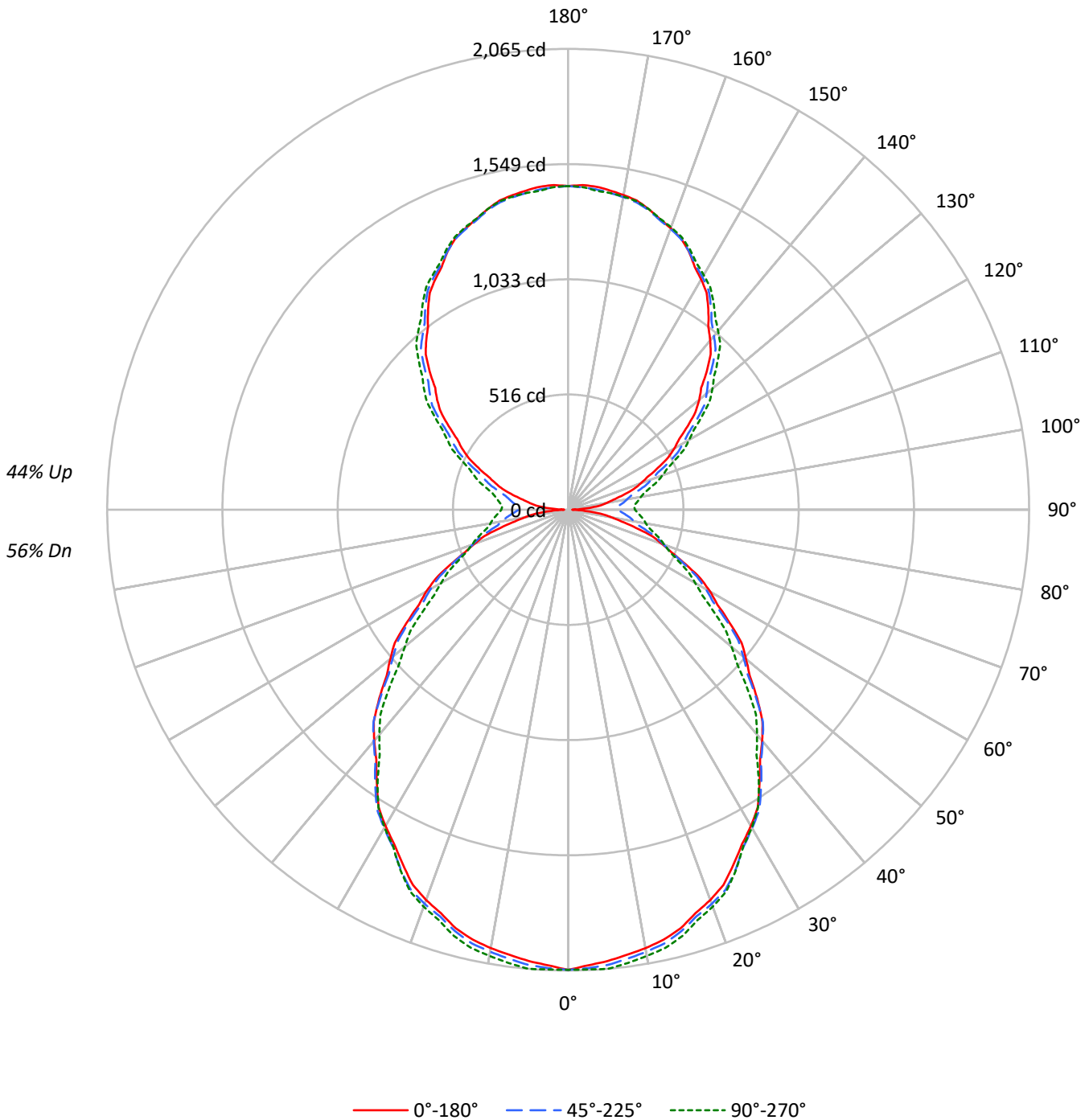
Lumens per Lamp: N/A
Luminaire Lumens: 9598.1 lumens
Efficiency: N/A
Efficacy: 139.1 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 1.19 / 1.3
Luminous Opening: Rectangular w/ Sides (W: 0.17' x L: 4' x H: 0.33')
CIE Type: General Diffuse

Input Watts (W): 69
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	109	109	109	109	101	101	101	101	87	87	87	74	74	74	62	62	62	56
1	99	94	90	86	91	87	84	80	75	72	70	64	62	60	54	52	51	46
2	90	82	75	70	83	76	71	66	66	62	58	56	53	50	47	45	43	38
3	82	72	64	58	76	67	60	55	58	53	49	50	46	42	42	39	36	33
4	75	64	56	50	69	60	52	47	52	46	42	44	40	36	37	34	31	28
5	69	57	49	43	64	53	46	40	46	40	36	40	35	32	34	30	27	24
6	63	51	43	37	59	48	41	35	42	36	31	36	31	28	31	27	24	21
7	59	46	38	32	54	43	36	31	38	32	28	33	28	25	28	24	22	19
8	55	42	34	29	51	40	32	27	35	29	25	30	25	22	26	22	19	17
9	51	38	31	26	47	36	29	25	32	26	22	28	23	20	24	20	18	15
10	48	35	28	23	44	33	27	22	29	24	20	26	21	18	22	19	16	14

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	33293	33293	33293
5°	32663	29395	28483
10°	32234	26173	24605
15°	31762	23440	21521
20°	31034	21029	18824
25°	30067	18762	16404
30°	29115	16609	14238
35°	27826	14625	12221
40°	26622	12779	10360
45°	25229	10985	8646
50°	23756	9334	7092
55°	22200	7847	5797
60°	20710	6465	4750
65°	18880	5251	3930
70°	17117	4249	3327
75°	14965	3504	2923
80°	12502	2975	2660
85°	9118	2687	2530

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 25229 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	194.7	2.0
10°-20°	552.5	5.8
20°-30°	815.8	8.5
30°-40°	938.6	9.8
40°-50°	910.8	9.5
50°-60°	766.4	8.0
60°-70°	568.9	5.9
70°-80°	384.1	4.0
80°-90°	257.0	2.7
90°-100°	237.0	2.5
100°-110°	339.0	3.5
110°-120°	486.2	5.1
120°-130°	625.3	6.5
130°-140°	705.6	7.4
140°-150°	697.0	7.3
150°-160°	589.5	6.1
160°-170°	392.5	4.1
170°-180°	137.3	1.4
0°-30°	1563.0	16.3
0°-40°	2501.6	26.1
0°-60°	4178.7	43.5
0°-90°	5388.7	56.1
90°-120°	1062.2	11.1
90°-150°	3090.1	32.2
90°-180°	4209.0	43.9
0°-180°	9598.1	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2062	2062	2062	2062	2062	
5°	2030	2067	2047	2051	2065	193
15°	1943	1974	1956	1963	1978	546
25°	1753	1785	1777	1768	1780	808
35°	1494	1521	1507	1488	1488	936
45°	1197	1213	1190	1153	1136	923
55°	882	900	865	814	794	791
65°	582	594	572	551	544	579
75°	314	327	365	390	397	336
85°	96	152	259	312	326	102
90°	20	109	222	281	299	18
95°	98	127	232	291	303	97
105°	255	259	321	370	380	272
115°	444	456	492	522	529	440
125°	654	673	703	727	733	586
135°	877	897	914	938	948	677
145°	1094	1108	1114	1122	1134	684
155°	1278	1285	1279	1281	1288	587
165°	1394	1400	1390	1386	1394	393
175°	1453	1459	1441	1434	1434	138
180°	1450	1450	1450	1450	1450	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2062.0	2062.0	2062.0	2062.0	2062.0
2.5°	2043.4	2073.0	2056.2	2059.7	2062.0
5°	2030.0	2067.0	2047.4	2050.7	2064.9
7.5°	2011.3	2046.7	2029.8	2032.1	2048.6
10°	1995.0	2029.2	2011.1	2015.7	2030.0
12.5°	1974.0	2008.4	1991.2	1997.1	2011.3
15°	1942.6	1974.1	1955.8	1963.3	1977.5
17.5°	1896.0	1928.3	1910.4	1913.8	1928.0
20°	1861.0	1891.0	1880.1	1878.8	1893.1
22.5°	1819.1	1851.4	1842.8	1834.6	1851.1
25°	1753.3	1784.8	1776.6	1768.1	1779.5
27.5°	1688.0	1714.5	1701.0	1690.6	1699.1
30°	1636.8	1665.4	1648.6	1637.0	1645.5
32.5°	1580.9	1610.7	1592.7	1578.6	1582.6
35°	1494.1	1521.4	1507.4	1488.3	1488.3
37.5°	1411.9	1432.8	1418.7	1392.6	1386.3
40°	1351.4	1374.5	1355.8	1325.0	1316.4
42.5°	1288.5	1311.6	1291.8	1257.3	1244.2
45°	1197.0	1212.9	1189.8	1152.9	1135.9
47.5°	1102.6	1120.3	1089.1	1048.0	1027.5
50°	1039.7	1058.5	1024.0	978.1	955.3
52.5°	979.2	994.6	959.8	909.5	890.2
55°	882.5	899.9	865.2	813.8	794.2
57.5°	792.2	809.0	770.3	728.8	712.1
60°	733.9	748.5	711.0	672.0	656.6
62.5°	668.7	684.5	650.5	622.3	609.3
65°	582.5	594.4	571.7	550.8	544.0
67.5°	501.5	510.6	498.3	493.2	491.1
70°	445.6	454.6	454.3	458.7	457.8
72.5°	394.3	402.3	416.3	429.0	430.4
75°	314.5	326.6	365.0	390.3	396.6
77.5°	244.6	256.3	323.2	359.2	368.7
80°	198.0	219.1	299.3	342.4	353.1
82.5°	156.1	186.5	281.2	330.3	341.0
85°	96.1	152.2	258.7	312.2	325.8
87.5°	45.8	124.8	237.9	294.9	310.5
90°	19.5	108.6	221.8	281.3	299.2
92.5°	49.8	111.2	222.9	281.0	296.4
95°	98.4	127.1	232.0	291.2	303.0
97.5°	144.2	155.8	250.8	304.9	316.8
100°	175.0	180.7	267.4	319.1	330.9
102.5°	207.2	209.2	287.6	336.9	348.8
105°	255.4	259.4	320.9	369.7	379.9
107.5°	309.2	314.3	364.9	409.6	418.8
110°	345.0	354.8	398.3	438.2	448.6



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	385.6	395.5	434.0	469.3	479.7
115°	443.7	456.4	492.2	521.6	529.2
117.5°	504.2	519.7	552.0	578.2	585.4
120°	548.7	564.0	594.0	618.9	624.9
122.5°	589.3	606.0	637.1	662.0	668.0
125°	653.5	673.4	703.3	726.6	732.7
127.5°	719.3	740.2	767.6	791.3	799.2
130°	766.2	785.8	809.5	834.5	843.5
132.5°	808.3	827.9	850.2	876.3	886.6
135°	877.3	896.9	914.3	937.6	948.2
137.5°	944.2	963.1	976.5	994.9	1008.2
140°	989.7	1006.3	1015.9	1033.1	1045.1
142.5°	1031.6	1048.1	1055.3	1070.0	1082.1
145°	1094.4	1107.9	1114.4	1122.4	1134.4
147.5°	1153.2	1166.4	1169.2	1176.1	1183.7
150°	1191.3	1203.4	1203.7	1206.9	1214.4
152.5°	1227.1	1237.9	1234.4	1236.5	1245.2
155°	1277.5	1285.1	1279.1	1280.8	1288.3
157.5°	1317.6	1325.1	1315.7	1318.6	1324.6
160°	1342.2	1349.7	1339.1	1340.8	1346.8
162.5°	1365.6	1370.7	1361.3	1359.3	1367.7
165°	1394.5	1400.5	1389.9	1385.5	1394.5
167.5°	1419.1	1425.2	1411.1	1406.4	1415.5
170°	1431.5	1437.5	1422.2	1416.3	1425.3
172.5°	1442.5	1448.6	1432.1	1424.8	1431.5
175°	1453.0	1459.0	1440.7	1434.5	1434.5
177.5°	1456.1	1459.7	1446.2	1440.2	1447.5
180°	1449.9	1449.9	1449.9	1449.9	1449.9

(END OF REPORT)