

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: P644327

Luminaire Tested: CRQ4DIP-SR4F0-50D125U830-FLLFLL-1DUDD-WW

Issue Date: 2/20/2023



Test Information

Test Method: LM-79-2019
Report Number: P644327
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-SR4F0-50D125U830-FLLFLL-1DUDD-WW
Description: NEO-RAY CIRQUE SUSPENDED LED LUMINAIRE
DOWNLIGHT - CURVED FROSTED LENS - 500 LUMENS PER FOOT
UPLIGHT - CURVED FROSTED LENS - 1250 LUMENS PER FOOT
Light Source: 3000K CCT, 80 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

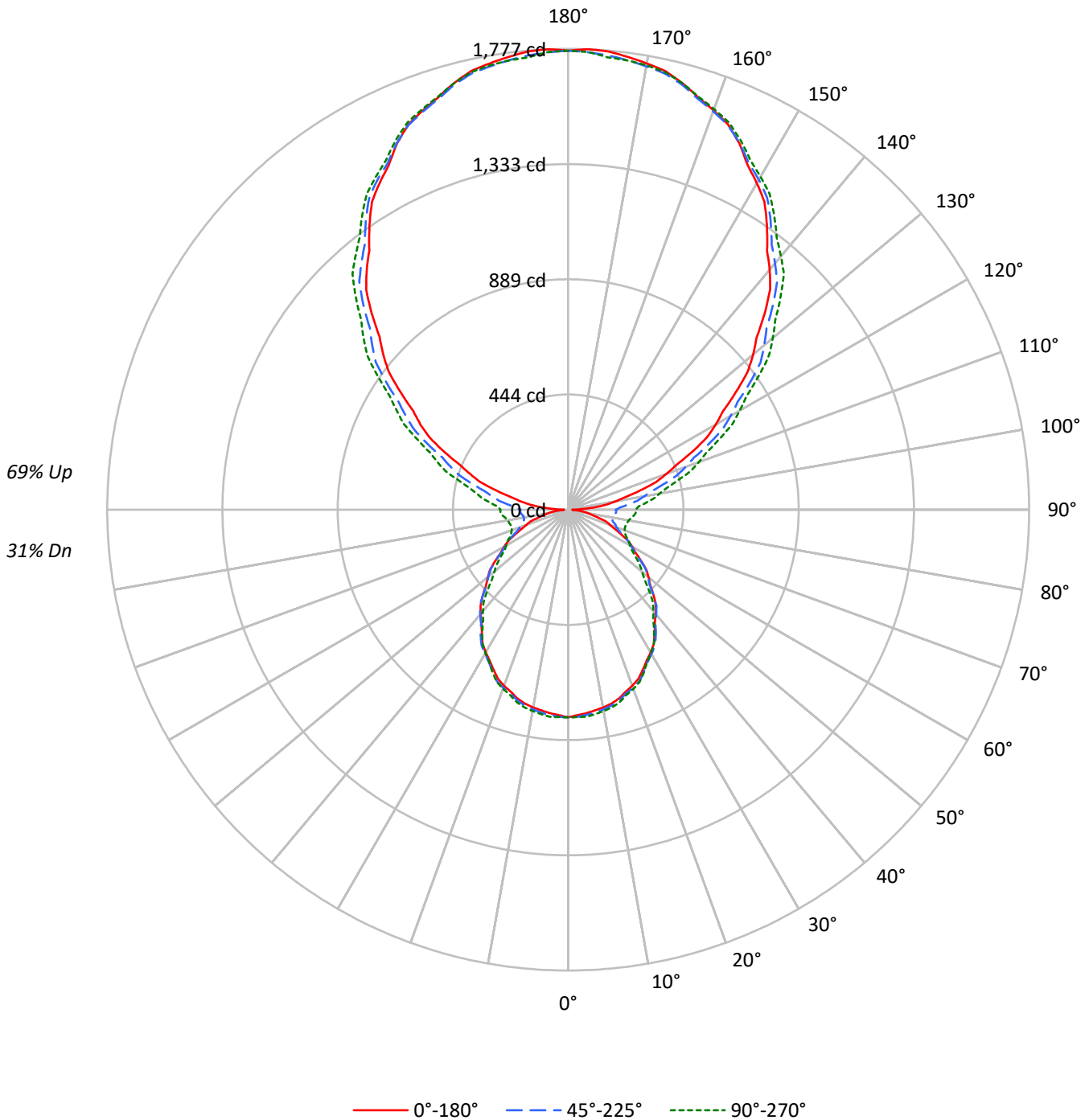
Lumens per Lamp: N/A
Luminaire Lumens: 7290.8 lumens
Efficiency: N/A
Efficacy: 138.9 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 1.19 / 1.3
Luminous Opening: Rectangular w/ Sides (W: 0.17' x L: 4' x H: 0.33')
CIE Type: Semi-Indirect

Input Watts (W): 52.5
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										
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	103	103	103	103	92	92	92	92	73	73	73	55	55	55	38	38	38	31																				
1	93	88	84	80	83	79	76	73	62	60	58	47	45	44	33	32	31	24																				
2	84	77	70	65	75	69	64	59	54	51	47	41	38	36	28	27	26	20																				
3	77	67	60	54	68	61	54	49	48	43	40	36	33	31	25	23	22	17																				
4	70	59	52	46	63	54	47	42	42	38	34	32	29	26	22	20	19	14																				
5	64	53	45	39	57	48	41	36	38	33	29	29	25	23	20	18	16	13																				
6	59	47	39	34	53	43	36	31	34	29	25	26	22	20	18	16	14	11																				
7	55	43	35	29	49	38	32	27	31	26	22	24	20	17	17	14	13	10																				
8	51	39	31	26	45	35	28	24	28	23	19	22	18	15	15	13	11	9																				
9	47	35	28	23	42	32	25	21	26	21	17	20	16	14	14	12	10	8																				
10	44	32	25	20	39	29	23	19	23	19	16	18	15	12	13	11	9	7																				

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	12925	12925	12925
5°	12681	11411	11057
10°	12514	10177	9552
15°	12330	9114	8355
20°	12049	8177	7308
25°	11671	7284	6368
30°	11302	6474	5527
35°	10802	5715	4744
40°	10334	4973	4021
45°	9795	4277	3356
50°	9222	3659	2753
55°	8618	3069	2316
60°	8039	2556	1992
65°	7328	2156	1785
70°	6645	1853	1683
75°	5810	1718	1692
80°	4855	1728	1785
85°	3539	1894	1977

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 9795 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	75.6	1.0
10°-20°	214.7	2.9
20°-30°	317.2	4.4
30°-40°	365.4	5.0
40°-50°	354.8	4.9
50°-60°	301.8	4.1
60°-70°	237.9	3.3
70°-80°	190.0	2.6
80°-90°	178.1	2.4
90°-100°	235.7	3.2
100°-110°	394.4	5.4
110°-120°	586.7	8.0
120°-130°	760.5	10.4
130°-140°	861.0	11.8
140°-150°	850.8	11.7
150°-160°	719.6	9.9
160°-170°	479.1	6.6
170°-180°	167.6	2.3
0°-30°	607.4	8.3
0°-40°	972.8	13.3
0°-60°	1629.5	22.3
0°-90°	2235.5	30.7
90°-120°	1216.8	16.7
90°-150°	3689.0	50.6
90°-180°	5055.0	69.3
0°-180°	7290.8	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	800	800	800	800	800	
5°	788	802	795	796	802	75
15°	754	769	760	762	768	212
25°	681	695	690	686	691	314
35°	580	594	589	578	578	363
45°	465	475	463	448	441	358
55°	343	354	338	320	317	307
65°	226	238	235	243	247	225
75°	122	137	179	217	230	131
85°	37	89	182	238	255	40
90°	16	85	184	242	261	13
95°	96	133	232	288	300	97
105°	288	307	380	429	437	306
115°	525	550	596	632	641	521
125°	788	817	856	887	894	706
135°	1071	1095	1116	1144	1157	825
145°	1336	1352	1360	1370	1385	834
155°	1560	1569	1561	1563	1573	716
165°	1702	1710	1697	1691	1702	480
175°	1774	1781	1759	1751	1751	168
180°	1770	1770	1770	1770	1770	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	800.5	800.5	800.5	800.5	800.5
2.5°	793.3	804.8	799.3	799.6	800.5
5°	788.1	802.4	794.8	796.1	801.6
7.5°	780.8	795.6	789.3	788.9	795.3
10°	774.5	787.8	782.0	782.5	788.1
12.5°	766.3	781.7	773.3	775.3	780.8
15°	754.1	768.9	760.5	762.2	767.7
17.5°	736.0	749.8	742.9	743.0	748.5
20°	722.5	735.4	731.1	729.4	734.9
22.5°	706.2	720.0	716.7	712.2	718.6
25°	680.6	695.4	689.7	686.4	690.8
27.5°	655.3	670.1	661.9	656.3	659.6
30°	635.4	649.0	642.6	635.5	638.8
32.5°	613.7	628.8	620.9	612.8	614.4
35°	580.0	594.4	589.0	577.8	577.8
37.5°	548.1	561.2	552.0	540.6	538.2
40°	524.6	538.6	527.6	514.4	511.0
42.5°	500.2	514.2	503.8	488.1	483.0
45°	464.7	474.6	463.2	447.6	440.9
47.5°	428.1	439.7	424.6	406.8	398.9
50°	403.6	414.7	401.4	379.7	370.9
52.5°	380.1	390.9	375.4	354.1	347.6
55°	342.6	354.4	338.4	319.9	317.3
57.5°	307.5	319.1	303.1	294.5	290.8
60°	284.9	295.6	281.1	277.6	275.4
62.5°	259.6	271.7	259.7	263.5	264.2
65°	226.1	238.3	234.7	243.4	247.1
67.5°	194.7	205.7	211.1	230.3	237.3
70°	173.0	184.0	198.1	223.1	231.5
72.5°	153.1	164.7	190.6	219.8	229.1
75°	122.1	136.8	178.9	217.1	229.6
77.5°	95.0	113.0	173.9	218.9	232.8
80°	76.9	102.6	173.9	221.6	237.0
82.5°	60.6	94.0	175.0	228.2	243.6
85°	37.3	89.1	182.4	238.1	254.6
87.5°	19.6	87.1	185.6	242.7	261.2
90°	16.5	84.9	183.5	241.5	260.9
92.5°	45.7	99.4	200.3	256.7	271.1
95°	95.9	133.3	232.3	287.5	299.6
97.5°	147.0	175.8	269.3	321.2	332.9
100°	184.5	208.0	297.3	348.2	357.8
102.5°	225.7	244.8	329.7	377.7	389.4
105°	287.5	306.6	379.5	429.3	437.1
107.5°	356.0	376.1	438.7	486.4	495.2
110°	401.7	425.6	481.4	525.2	535.5



TEST NUMBER: P644327

CATALOG NUMBER: CRQ4DIP-SR4F0-50D125U830-FLLFLL-1DUDD-WW

CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	451.3	475.2	525.0	567.0	577.3
115°	524.6	549.6	596.0	631.9	641.1
117.5°	601.4	627.0	669.4	703.8	712.6
120°	657.6	681.1	722.6	755.5	762.8
122.5°	707.2	734.3	775.2	808.1	815.4
125°	788.0	817.0	856.0	887.0	894.3
127.5°	871.2	898.6	934.6	966.0	975.5
130°	930.4	954.3	985.7	1018.6	1029.6
132.5°	985.7	1009.6	1037.4	1069.7	1082.2
135°	1071.0	1094.8	1116.0	1144.5	1157.4
137.5°	1152.5	1175.6	1192.0	1214.5	1230.7
140°	1208.1	1228.3	1240.1	1261.1	1275.8
142.5°	1259.2	1279.4	1288.2	1306.1	1320.8
145°	1335.9	1352.4	1360.3	1370.0	1384.7
147.5°	1407.7	1423.8	1427.2	1435.7	1444.9
150°	1454.2	1468.9	1469.3	1473.2	1482.4
152.5°	1497.8	1511.1	1506.9	1509.4	1520.0
155°	1559.5	1568.6	1561.3	1563.4	1572.6
157.5°	1608.3	1617.5	1606.1	1609.6	1617.0
160°	1638.4	1647.6	1634.6	1636.7	1644.0
162.5°	1666.9	1673.2	1661.7	1659.3	1669.6
165°	1702.3	1709.6	1696.6	1691.2	1702.3
167.5°	1732.3	1739.7	1722.5	1716.8	1727.8
170°	1747.4	1754.7	1736.1	1728.8	1739.8
172.5°	1760.9	1768.2	1748.1	1739.3	1747.4
175°	1773.7	1781.0	1758.6	1751.1	1751.1
177.5°	1777.4	1781.8	1765.4	1758.1	1766.9
180°	1769.9	1769.9	1769.9	1769.9	1769.9

(END OF REPORT)