

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: P644255

Luminaire Tested: CRQ4DIP-SR4F0-125D125U830-FLLFLL-1DUDD-WW

Issue Date: 2/20/2023



Test Information

Test Method: LM-79-2019
Report Number: P644255
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-SR4F0-125D125U830-FLLFLL-1DUDD-WW
Description: NEO-RAY CIRQUE SUSPENDED LED LUMINAIRE
DOWNLIGHT - CURVED FROSTED LENS - 1250 LUMENS PER FOOT
UPLIGHT - CURVED FROSTED LENS - 1250 LUMENS PER FOOT
Light Source: 3000K CCT, 80 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

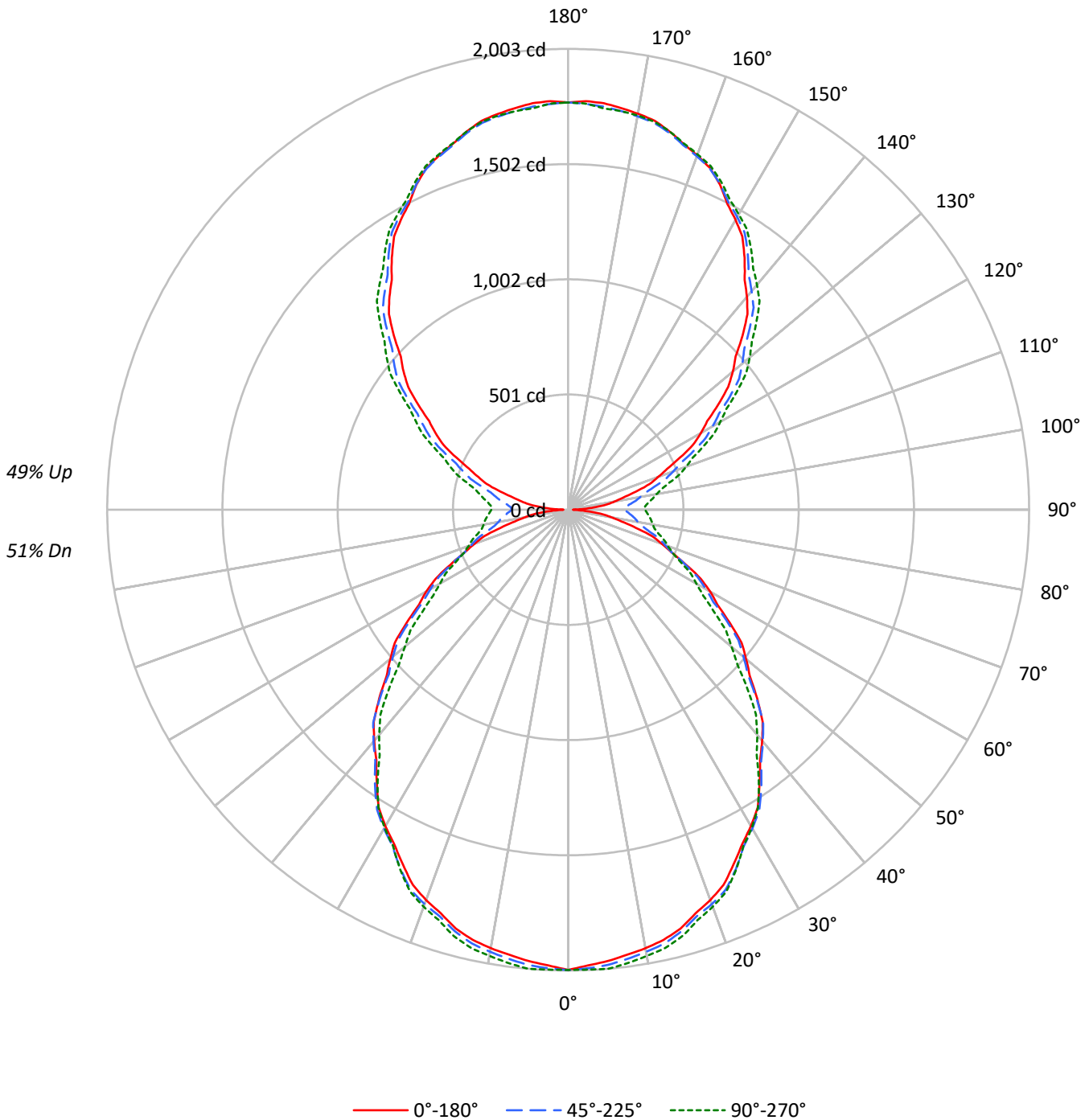
Lumens per Lamp: N/A
Luminaire Lumens: 10384.6 lumens
Efficiency: N/A
Efficacy: 132.8 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 1.19 / 1.3
Luminous Opening: Rectangular w/ Sides (W: 0.17' x L: 4' x H: 0.33')
CIE Type: General Diffuse

Input Watts (W): 78.2
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	50	30	10	0	
RCR																						
0	107	107	107	107	99	99	99	99	84	84	84	70	70	70	57	57	57	51				
1	97	93	89	85	90	86	82	79	72	70	67	60	58	57	49	48	47	41				
2	88	81	74	69	81	75	69	64	63	59	56	53	50	47	43	41	39	34				
3	81	71	64	58	74	66	59	54	56	51	47	47	43	40	38	36	33	29				
4	74	63	55	49	68	58	51	46	50	44	40	42	38	34	34	31	29	25				
5	68	56	48	42	62	52	45	39	45	39	34	37	33	30	31	28	25	22				
6	63	50	42	36	58	47	40	34	40	34	30	34	29	26	28	25	22	19				
7	58	45	37	32	53	42	35	30	36	31	27	31	26	23	26	22	20	17				
8	54	41	34	28	49	39	32	27	33	28	24	28	24	21	24	20	18	15				
9	50	38	30	25	46	35	28	24	31	25	21	26	22	19	22	18	16	14				
10	47	35	27	23	43	32	26	21	28	23	19	24	20	17	20	17	15	13				

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	32300	32300	32300
5°	31688	28519	27633
10°	31273	25398	23870
15°	30815	22745	20880
20°	30109	20406	18263
25°	29170	18202	15914
30°	28247	16122	13813
35°	26995	14200	11856
40°	25828	12402	10051
45°	24477	10661	8388
50°	23048	9066	6880
55°	21536	7619	5644
60°	20092	6286	4653
65°	18316	5130	3890
70°	16606	4183	3346
75°	14523	3507	3003
80°	12129	3059	2807
85°	8843	2863	2753

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°

Vertical Angle: 45°

Luminance: 24477 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	188.9	1.8
10°-20°	536.1	5.2
20°-30°	791.6	7.6
30°-40°	910.9	8.8
40°-50°	884.0	8.5
50°-60°	744.8	7.2
60°-70°	557.1	5.4
70°-80°	385.0	3.7
80°-90°	272.9	2.6
90°-100°	273.2	2.6
100°-110°	408.0	3.9
110°-120°	591.5	5.7
120°-130°	762.4	7.3
130°-140°	861.2	8.3
140°-150°	850.8	8.2
150°-160°	719.6	6.9
160°-170°	479.1	4.6
170°-180°	167.6	1.6
0°-30°	1516.6	14.6
0°-40°	2427.5	23.4
0°-60°	4056.3	39.1
0°-90°	5271.2	50.8
90°-120°	1272.6	12.3
90°-150°	3747.1	36.1
90°-180°	5113.0	49.2
0°-180°	10384.6	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2000	2000	2000	2000	2000	
5°	1969	2005	1986	1990	2003	187
15°	1885	1916	1898	1905	1919	530
25°	1701	1732	1724	1715	1726	784
35°	1450	1477	1464	1444	1444	908
45°	1161	1178	1155	1119	1102	895
55°	856	874	840	791	773	768
65°	565	579	558	543	539	562
75°	305	320	365	398	408	326
85°	93	157	276	338	355	99
90°	22	118	244	313	334	20
95°	113	149	268	335	349	112
105°	304	314	388	445	456	324
115°	536	555	599	635	644	533
125°	795	820	858	887	894	712
135°	1071	1095	1116	1144	1157	826
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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CATALOG NUMBER: CRQ4DIP-SR4F0-125D125U830-FLLFLL-1DUDD-WW

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2000.5	2000.5	2000.5	2000.5	2000.5
2.5°	1982.4	2011.2	1995.2	1998.3	2000.5
5°	1969.4	2005.3	1986.4	1989.5	2003.3
7.5°	1951.3	1986.0	1969.6	1971.5	1987.5
10°	1935.5	1968.7	1951.5	1955.6	1969.4
12.5°	1915.2	1949.1	1931.9	1937.5	1951.3
15°	1884.7	1916.0	1897.8	1904.8	1918.6
17.5°	1839.4	1871.1	1853.8	1856.7	1870.5
20°	1805.5	1835.0	1824.4	1822.8	1836.6
22.5°	1764.9	1796.5	1788.2	1779.9	1795.9
25°	1701.0	1732.3	1723.6	1715.4	1726.4
27.5°	1637.7	1664.8	1650.7	1640.2	1648.4
30°	1588.0	1616.5	1600.2	1588.2	1596.4
32.5°	1533.7	1563.7	1546.0	1531.5	1535.4
35°	1449.5	1477.1	1463.6	1443.9	1443.9
37.5°	1369.8	1391.6	1376.8	1351.1	1345.0
40°	1311.1	1335.0	1315.8	1285.4	1277.2
42.5°	1250.0	1274.0	1254.0	1219.8	1207.1
45°	1161.3	1177.9	1154.7	1118.6	1102.0
47.5°	1069.8	1088.3	1057.1	1016.8	996.9
50°	1008.7	1028.1	994.6	948.9	926.8
52.5°	950.0	966.3	932.1	882.7	864.2
55°	856.1	874.5	840.1	790.7	773.2
57.5°	768.6	786.4	748.6	710.5	695.2
60°	712.0	727.7	691.3	657.0	643.2
62.5°	648.8	665.9	633.3	610.4	599.5
65°	565.1	578.9	558.5	543.2	538.6
67.5°	486.6	497.6	488.8	490.2	490.5
70°	432.3	443.3	447.3	458.6	460.4
72.5°	382.6	392.9	412.6	432.2	436.2
75°	305.2	319.9	365.3	398.4	407.5
77.5°	237.3	252.8	328.1	372.4	384.7
80°	192.1	217.9	307.8	358.8	372.6
82.5°	151.5	187.5	292.7	350.5	364.3
85°	93.2	156.7	275.7	338.1	354.6
87.5°	45.0	132.7	258.8	324.7	343.6
90°	21.6	118.2	244.5	312.7	333.8
92.5°	56.2	124.8	250.5	317.1	334.5
95°	112.8	148.6	267.9	335.0	348.7
97.5°	167.3	185.8	295.1	356.9	370.5
100°	204.9	216.8	317.6	377.1	390.0
102.5°	244.7	252.2	344.6	401.2	414.8
105°	304.4	313.6	388.0	444.7	455.7
107.5°	371.0	381.4	443.4	495.9	506.4
110°	415.3	430.9	484.8	532.0	544.0



TEST NUMBER: P644255

CATALOG NUMBER: CRQ4DIP-SR4F0-125D125U830-FLLFLL-1DUDD-WW

CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	464.9	480.5	528.4	571.1	583.0
115°	536.5	554.8	599.4	635.3	644.5
117.5°	611.2	632.2	672.5	705.2	714.0
120°	666.1	686.3	724.3	755.5	762.8
122.5°	715.7	738.1	776.9	808.1	815.4
125°	794.8	820.5	857.7	887.0	894.3
127.5°	876.0	902.0	936.2	966.0	975.5
130°	933.8	957.7	987.4	1018.6	1029.6
132.5°	986.4	1010.3	1037.7	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)