

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: P644407

Luminaire Tested: CRQ4DIP-SR4F0-75D125U935-FLLFLL-1DUDD-WW

Issue Date: 2/20/2023



**Test Information**

Test Method: LM-79-2019  
Report Number: P644407  
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-SR4F0-75D125U935-FLLFLL-1DUDD-WW  
Description: NEO-RAY CIRQUE SUSPENDED LED LUMINAIRE  
DOWNLIGHT - CURVED FROSTED LENS - 750 LUMENS PER FOOT  
UPLIGHT - CURVED FROSTED LENS - 1250 LUMENS PER FOOT  
Light Source: 3500K CCT, 90 CRI LEDS  
Ballast/Driver: ELECTRONIC DRIVER

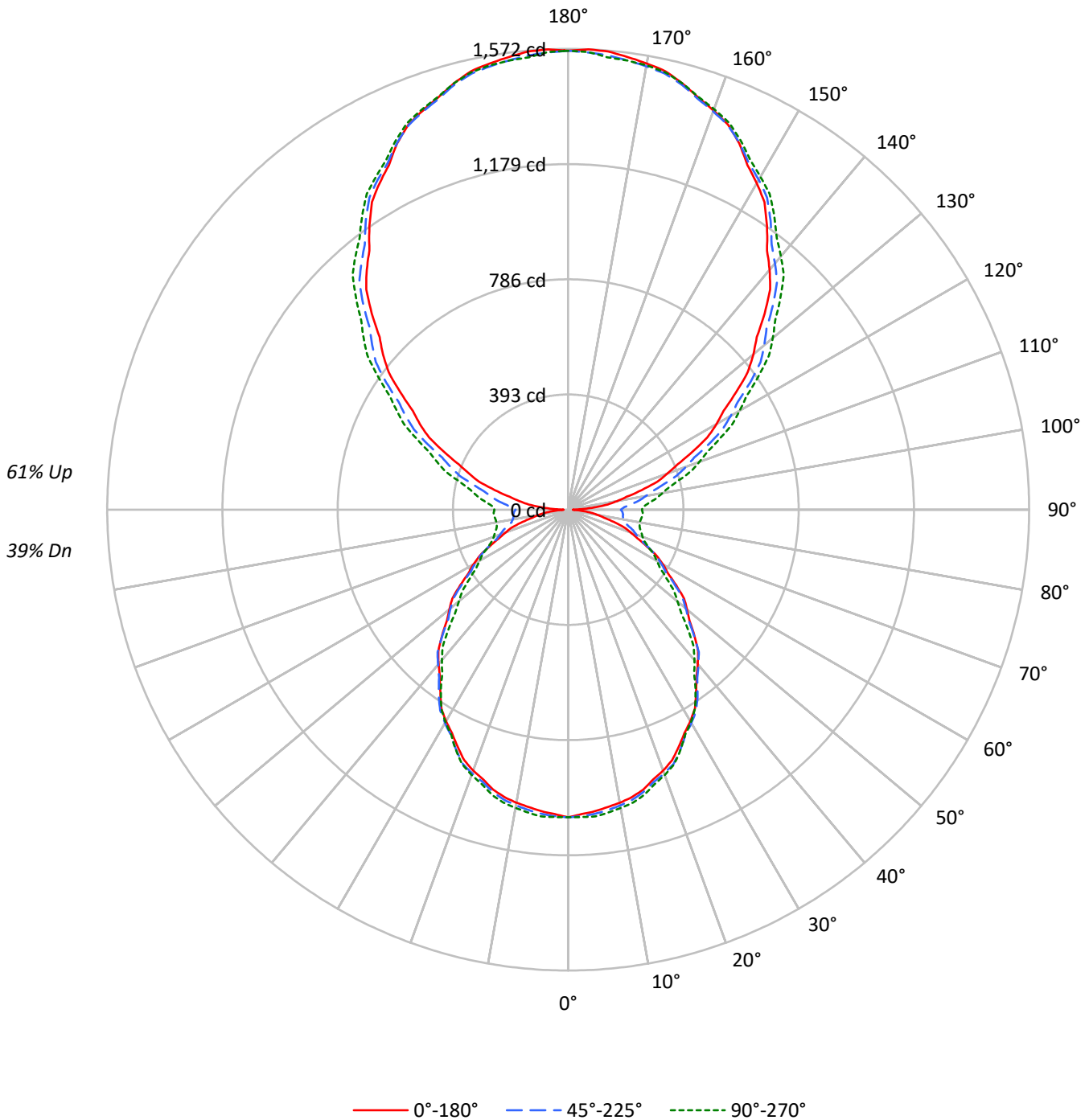
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 7327.7 lumens  
Efficiency: N/A  
Efficacy: 122.1 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: Semi-Indirect

Input Watts (W): 60  
Input Voltage (V): 120  
Input Current (A<sub>in</sub>): 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

TEST NUMBER: P644407  
CATALOG NUMBER: CRQ4DIP-SR4F0-75D125U935-FLLFLL-1DUDD-WW

### Luminous Intensity Polar Plot





TEST NUMBER: P644407

CATALOG NUMBER: CRQ4DIP-SR4F0-75D125U935-FLLFLL-1DUDD-WW

**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	104	104	104	104	95	95	95	95	77	77	77	61	61	61	46	46	46	39				
1	95	90	86	82	86	82	78	75	66	64	62	52	51	49	39	38	37	31				
2	86	78	72	67	78	71	66	61	58	54	51	46	43	41	34	33	31	26				
3	78	69	61	56	71	63	56	51	51	46	43	40	37	34	30	28	26	22				
4	72	61	53	47	65	55	49	43	45	40	36	36	32	29	27	25	23	19				
5	66	54	46	40	59	49	42	37	41	35	31	32	28	25	25	22	20	16				
6	60	48	40	35	55	44	37	32	36	31	27	29	25	22	22	20	17	14				
7	56	44	36	30	51	40	33	28	33	28	24	27	23	20	20	18	16	13				
8	52	40	32	27	47	36	30	25	30	25	21	24	20	17	19	16	14	11				
9	48	36	29	24	44	33	27	22	28	22	19	22	18	16	17	15	13	10				
10	45	33	26	21	41	30	24	20	25	20	17	21	17	14	16	13	11	9				

**AVERAGE LUMINANCE (cd/sqm):**

	0°	45°	90°
0°	16939	16939	16939
5°	16618	14956	14492
10°	16400	13328	12518
15°	16159	11936	10950
20°	15789	10708	9577
25°	15297	9546	8345
30°	14812	8468	7244
35°	14156	7467	6218
40°	13543	6510	5270
45°	12836	5597	4399
50°	12087	4773	3608
55°	11295	4008	2994
60°	10537	3321	2518
65°	9604	2752	2177
70°	8708	2302	1961
75°	7613	2028	1869
80°	6364	1906	1870
85°	4640	1950	1969

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 0°  
 Vertical Angle: 45°  
 Luminance: 12836 cd/sqm



TEST NUMBER: P644407

CATALOG NUMBER: CRQ4DIP-SR4F0-75D125U935-FLLFLL-1DUDD-WW

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	99.1	1.4
10°-20°	281.2	3.8
20°-30°	415.4	5.7
30°-40°	478.2	6.5
40°-50°	464.2	6.3
50°-60°	392.9	5.4
60°-70°	301.1	4.1
70°-80°	223.5	3.0
80°-90°	184.5	2.5
90°-100°	219.1	3.0
100°-110°	352.7	4.8
110°-120°	520.3	7.1
120°-130°	673.2	9.2
130°-140°	761.6	10.4
140°-150°	752.5	10.3
150°-160°	636.5	8.7
160°-170°	423.8	5.8
170°-180°	148.2	2.0
0°-30°	795.7	10.9
0°-40°	1273.9	17.4
0°-60°	2131.0	29.1
0°-90°	2840.1	38.8
90°-120°	1092.1	14.9
90°-150°	3279.3	44.8
90°-180°	4488.0	61.2
0°-180°	7327.7	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1049	1049	1049	1049	1049	
5°	1033	1052	1042	1043	1051	98
15°	988	1006	996	999	1006	278
25°	892	910	904	900	905	411
35°	760	777	770	757	757	476
45°	609	620	606	587	578	469
55°	449	461	442	417	410	403
65°	296	308	300	300	301	295
75°	160	173	211	244	254	171
85°	49	98	188	239	254	52
90°	16	85	180	234	252	14
95°	90	122	216	268	279	90
105°	259	273	338	384	392	276
115°	467	488	528	560	568	464
125°	699	724	758	784	791	626
135°	947	968	987	1012	1024	730
145°	1182	1196	1203	1212	1225	738
155°	1379	1387	1381	1383	1391	633
165°	1506	1512	1501	1496	1506	424
175°	1569	1575	1555	1549	1549	149
180°	1565	1565	1565	1565	1565	

TEST NUMBER: P644407

CATALOG NUMBER: CRQ4DIP-SR4F0-75D125U935-FLLFLL-1DUDD-WW

**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1049.1	1049.1	1049.1	1049.1	1049.1
2.5°	1039.6	1054.7	1046.8	1047.9	1049.1
5°	1032.8	1051.6	1041.7	1043.3	1050.6
7.5°	1023.3	1042.0	1033.5	1033.9	1042.3
10°	1015.0	1032.4	1024.1	1025.5	1032.8
12.5°	1004.3	1023.2	1013.3	1016.0	1023.3
15°	988.3	1006.1	995.9	998.9	1006.1
17.5°	964.6	981.9	972.8	973.7	980.9
20°	946.8	962.9	957.4	955.9	963.1
22.5°	925.5	942.8	938.4	933.4	941.8
25°	892.0	909.7	903.9	899.6	905.3
27.5°	858.8	875.4	866.4	860.1	864.5
30°	832.7	849.0	840.5	832.8	837.2
32.5°	804.3	821.9	812.1	803.2	805.2
35°	760.1	776.6	769.6	757.2	757.2
37.5°	718.4	732.4	722.7	708.5	705.3
40°	687.5	702.7	690.7	674.1	669.7
42.5°	655.5	670.7	658.8	639.7	633.0
45°	609.0	619.7	606.2	586.6	577.9
47.5°	561.0	573.2	555.3	533.2	522.8
50°	529.0	541.1	523.6	497.6	486.0
52.5°	498.2	509.3	490.3	463.4	454.3
55°	449.0	461.3	441.9	416.8	410.2
57.5°	403.0	415.0	394.7	378.7	372.2
60°	373.4	384.2	365.2	353.4	348.1
62.5°	340.2	352.4	335.9	331.7	329.0
65°	296.3	307.5	299.6	300.5	301.4
67.5°	255.2	264.9	265.6	277.6	281.9
70°	226.7	236.5	246.1	264.3	269.8
72.5°	200.6	210.5	231.7	254.8	261.5
75°	160.0	173.0	211.2	243.5	253.6
77.5°	124.5	139.7	197.7	237.2	249.1
80°	100.8	123.5	191.8	235.0	248.2
82.5°	79.4	109.7	188.2	236.6	249.7
85°	48.9	98.0	187.8	239.0	253.6
87.5°	24.6	90.0	185.0	237.9	254.5
90°	16.1	84.6	179.6	233.8	251.5
92.5°	43.4	95.1	191.4	244.2	257.8
95°	89.6	122.3	215.6	267.7	278.9
97.5°	135.8	158.3	245.5	294.3	305.1
100°	169.0	186.5	268.7	316.2	325.6
102.5°	205.0	218.6	295.9	340.8	351.6
105°	259.1	273.2	338.1	384.1	391.9
107.5°	319.1	334.1	389.3	432.9	441.2
110°	359.2	377.9	426.7	466.5	476.0



TEST NUMBER: P644407

CATALOG NUMBER: CRQ4DIP-SR4F0-75D125U935-FLLFLL-1DUDD-WW

**CANDELA DISTRIBUTION (continued):**

	0°	22.5°	45°	67.5°	90°
112.5°	403.0	421.8	465.3	502.6	512.2
115°	467.4	487.6	528.1	559.8	568.0
117.5°	534.7	556.0	592.9	622.9	630.7
120°	584.0	603.9	639.6	668.2	674.7
122.5°	627.9	650.5	686.1	714.7	721.2
125°	698.9	723.6	757.6	784.5	791.0
127.5°	771.9	795.8	827.1	854.3	862.8
130°	823.9	845.0	872.3	900.9	910.7
132.5°	872.0	893.1	917.6	946.1	957.2
135°	947.2	968.3	987.1	1012.3	1023.7
137.5°	1019.3	1039.8	1054.2	1074.2	1088.5
140°	1068.5	1086.4	1096.8	1115.3	1128.3
142.5°	1113.7	1131.6	1139.3	1155.2	1168.2
145°	1181.5	1196.1	1203.1	1211.7	1224.7
147.5°	1245.0	1259.3	1262.3	1269.8	1277.9
150°	1286.2	1299.2	1299.5	1303.0	1311.1
152.5°	1324.8	1336.5	1332.7	1335.0	1344.4
155°	1379.3	1387.4	1380.9	1382.8	1390.9
157.5°	1422.5	1430.6	1420.5	1423.6	1430.1
160°	1449.1	1457.2	1445.7	1447.6	1454.1
162.5°	1474.3	1479.8	1469.7	1467.6	1476.7
165°	1505.6	1512.1	1500.6	1495.8	1505.6
167.5°	1532.2	1538.7	1523.5	1518.4	1528.2
170°	1545.4	1551.9	1535.5	1529.1	1538.8
172.5°	1557.4	1563.9	1546.1	1538.3	1545.4
175°	1568.7	1575.2	1555.4	1548.8	1548.8
177.5°	1572.0	1575.9	1561.4	1554.9	1562.7
180°	1565.4	1565.4	1565.4	1565.4	1565.4

(END OF REPORT)