

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: P644405

Luminaire Tested: CRQ4DIP-SR4F0-75D125U930-FLLFLL-1DUDD-WW

Issue Date: 2/20/2023



**Test Information**

Test Method: LM-79-2019  
Report Number: P644405  
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-SR4F0-75D125U930-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: 3000K CCT, 90 CRI LEDS  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

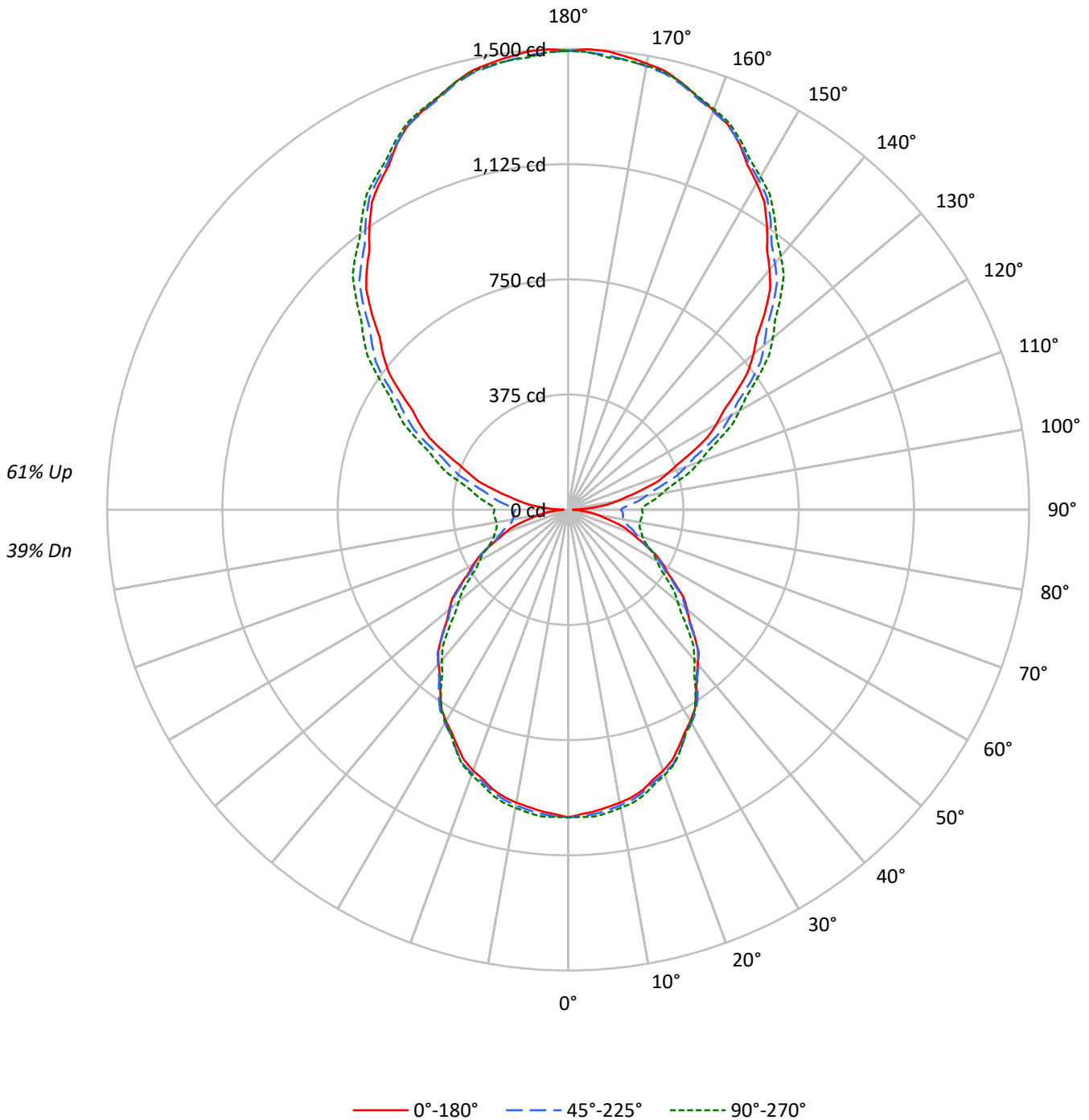
Lumens per Lamp: N/A  
Luminaire Lumens: 6992.2 lumens  
Efficiency: N/A  
Efficacy: 116.5 lumens/watt  
Spacing Criteria (0/90/45): 1.19 / 1.19 / 1.3  
Luminous Opening: Rectangular w/ Sides (W: 0.17' x L: 4' x H: 0.33')  
CIE Type: Semi-Indirect

Input Watts (W): 60  
Input Voltage (V): 120  
Input Current (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					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°	16162	16162	16162
5°	15857	14271	13828
10°	15649	12718	11945
15°	15420	11389	10448
20°	15067	10217	9138
25°	14597	9108	7963
30°	14134	8080	6913
35°	13508	7124	5933
40°	12923	6212	5030
45°	12248	5341	4197
50°	11534	4554	3443
55°	10777	3824	2857
60°	10054	3169	2403
65°	9166	2626	2077
70°	8309	2196	1872
75°	7266	1935	1784
80°	6068	1820	1784
85°	4431	1861	1879

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 0°  
 Vertical Angle: 45°  
 Luminance: 12248 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	94.5	1.4
10°-20°	268.3	3.8
20°-30°	396.3	5.7
30°-40°	456.3	6.5
40°-50°	443.0	6.3
50°-60°	374.9	5.4
60°-70°	287.4	4.1
70°-80°	213.2	3.0
80°-90°	176.0	2.5
90°-100°	209.1	3.0
100°-110°	336.5	4.8
110°-120°	496.5	7.1
120°-130°	642.3	9.2
130°-140°	726.7	10.4
140°-150°	718.0	10.3
150°-160°	607.3	8.7
160°-170°	404.4	5.8
170°-180°	141.4	2.0
0°-30°	759.2	10.9
0°-40°	1215.5	17.4
0°-60°	2033.4	29.1
0°-90°	2710.0	38.8
90°-120°	1042.0	14.9
90°-150°	3129.1	44.8
90°-180°	4282.0	61.2
0°-180°	6992.2	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1001	1001	1001	1001	1001	
5°	986	1004	994	996	1002	94
15°	943	960	950	953	960	265
25°	851	868	862	858	864	392
35°	725	741	734	722	722	454
45°	581	591	578	560	551	448
55°	428	440	422	398	391	384
65°	283	294	286	287	288	281
75°	153	165	202	232	242	163
85°	47	94	179	228	242	50
90°	15	81	171	223	240	13
95°	86	117	206	256	266	86
105°	247	261	323	366	374	264
115°	446	465	504	534	542	443
125°	667	690	723	749	755	598
135°	904	924	942	966	977	697
145°	1127	1141	1148	1156	1169	704
155°	1316	1324	1318	1320	1327	604
165°	1437	1443	1432	1427	1437	405
175°	1497	1503	1484	1478	1478	142
180°	1494	1494	1494	1494	1494	

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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1001.0	1001.0	1001.0	1001.0	1001.0
2.5°	992.0	1006.4	998.9	999.9	1001.0
5°	985.5	1003.5	994.0	995.5	1002.5
7.5°	976.4	994.3	986.2	986.5	994.5
10°	968.5	985.1	977.2	978.6	985.5
12.5°	958.3	976.3	966.9	969.5	976.4
15°	943.1	960.0	950.3	953.1	960.0
17.5°	920.4	936.9	928.3	929.1	936.0
20°	903.5	918.9	913.5	912.1	919.0
22.5°	883.1	899.6	895.4	890.7	898.7
25°	851.2	868.1	862.5	858.4	863.9
27.5°	819.5	835.3	826.8	820.7	824.9
30°	794.6	810.2	802.0	794.7	798.9
32.5°	767.5	784.2	774.9	766.4	768.3
35°	725.3	741.0	734.3	722.5	722.5
37.5°	685.5	698.8	689.6	676.1	673.0
40°	656.0	670.5	659.0	643.2	639.1
42.5°	625.5	640.0	628.6	610.4	604.0
45°	581.1	591.3	578.5	559.7	551.4
47.5°	535.3	547.0	529.9	508.8	498.8
50°	504.8	516.3	499.6	474.8	463.8
52.5°	475.4	485.9	467.8	442.2	433.5
55°	428.4	440.1	421.7	397.7	391.4
57.5°	384.6	396.0	376.6	361.4	355.1
60°	356.3	366.7	348.5	337.2	332.2
62.5°	324.6	336.2	320.5	316.5	313.9
65°	282.8	293.5	285.9	286.7	287.6
67.5°	243.5	252.8	253.5	264.9	269.0
70°	216.3	225.6	234.8	252.2	257.5
72.5°	191.4	200.9	221.1	243.1	249.5
75°	152.7	165.1	201.5	232.4	242.0
77.5°	118.8	133.3	188.6	226.4	237.7
80°	96.1	117.9	183.1	224.2	236.8
82.5°	75.8	104.7	179.6	225.7	238.3
85°	46.7	93.5	179.2	228.0	242.0
87.5°	23.4	85.9	176.5	227.0	242.8
90°	15.3	80.7	171.4	223.1	240.0
92.5°	41.4	90.8	182.7	233.0	246.0
95°	85.5	116.7	205.7	255.5	266.2
97.5°	129.5	151.1	234.3	280.8	291.1
100°	161.3	177.9	256.4	301.7	310.7
102.5°	195.7	208.6	282.3	325.1	335.5
105°	247.2	260.6	322.6	366.5	373.9
107.5°	304.5	318.8	371.5	413.1	421.0
110°	342.7	360.6	407.2	445.1	454.2



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**CANDELA DISTRIBUTION (continued):**

	0°	22.5°	45°	67.5°	90°
112.5°	384.6	402.5	444.0	479.6	488.8
115°	446.0	465.2	503.9	534.2	542.0
117.5°	510.2	530.5	565.8	594.3	601.8
120°	557.3	576.2	610.3	637.6	643.8
122.5°	599.2	620.7	654.7	682.0	688.2
125°	666.9	690.5	722.9	748.6	754.8
127.5°	736.5	759.3	789.2	815.2	823.3
130°	786.2	806.3	832.3	859.6	869.0
132.5°	832.1	852.3	875.6	902.8	913.3
135°	903.8	924.0	941.9	965.9	976.8
137.5°	972.7	992.2	1006.0	1025.0	1038.6
140°	1019.6	1036.6	1046.5	1064.3	1076.7
142.5°	1062.7	1079.8	1087.1	1102.3	1114.7
145°	1127.4	1141.4	1148.0	1156.2	1168.6
147.5°	1188.0	1201.6	1204.5	1211.6	1219.4
150°	1227.3	1239.7	1240.0	1243.3	1251.1
152.5°	1264.1	1275.3	1271.7	1273.8	1282.8
155°	1316.1	1323.9	1317.7	1319.5	1327.2
157.5°	1357.3	1365.1	1355.4	1358.4	1364.6
160°	1382.7	1390.5	1379.5	1381.3	1387.5
162.5°	1406.8	1412.1	1402.4	1400.4	1409.0
165°	1436.6	1442.8	1431.9	1427.3	1436.6
167.5°	1462.0	1468.2	1453.7	1448.9	1458.2
170°	1474.7	1480.9	1465.2	1459.0	1468.3
172.5°	1486.1	1492.3	1475.3	1467.9	1474.7
175°	1496.9	1503.1	1484.2	1477.9	1477.9
177.5°	1500.1	1503.8	1489.9	1483.7	1491.2
180°	1493.7	1493.7	1493.7	1493.7	1493.7

(END OF REPORT)