

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: P644301

Luminaire Tested: CRQ4DIP-SR4F0-125D50U940-FLLFLL-1DUDD-WW

Issue Date: 2/20/2023



Test Information

Test Method: LM-79-2019
Report Number: P644301
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-SR4F0-125D50U940-FLLFLL-1DUDD-WW
Description: NEO-RAY CIRQUE SUSPENDED LED LUMINAIRE
DOWNLIGHT - CURVED FROSTED LENS - 1250 LUMENS PER FOOT
UPLIGHT - CURVED FROSTED LENS - 500 LUMENS PER FOOT
Light Source: 4000K CCT, 90 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

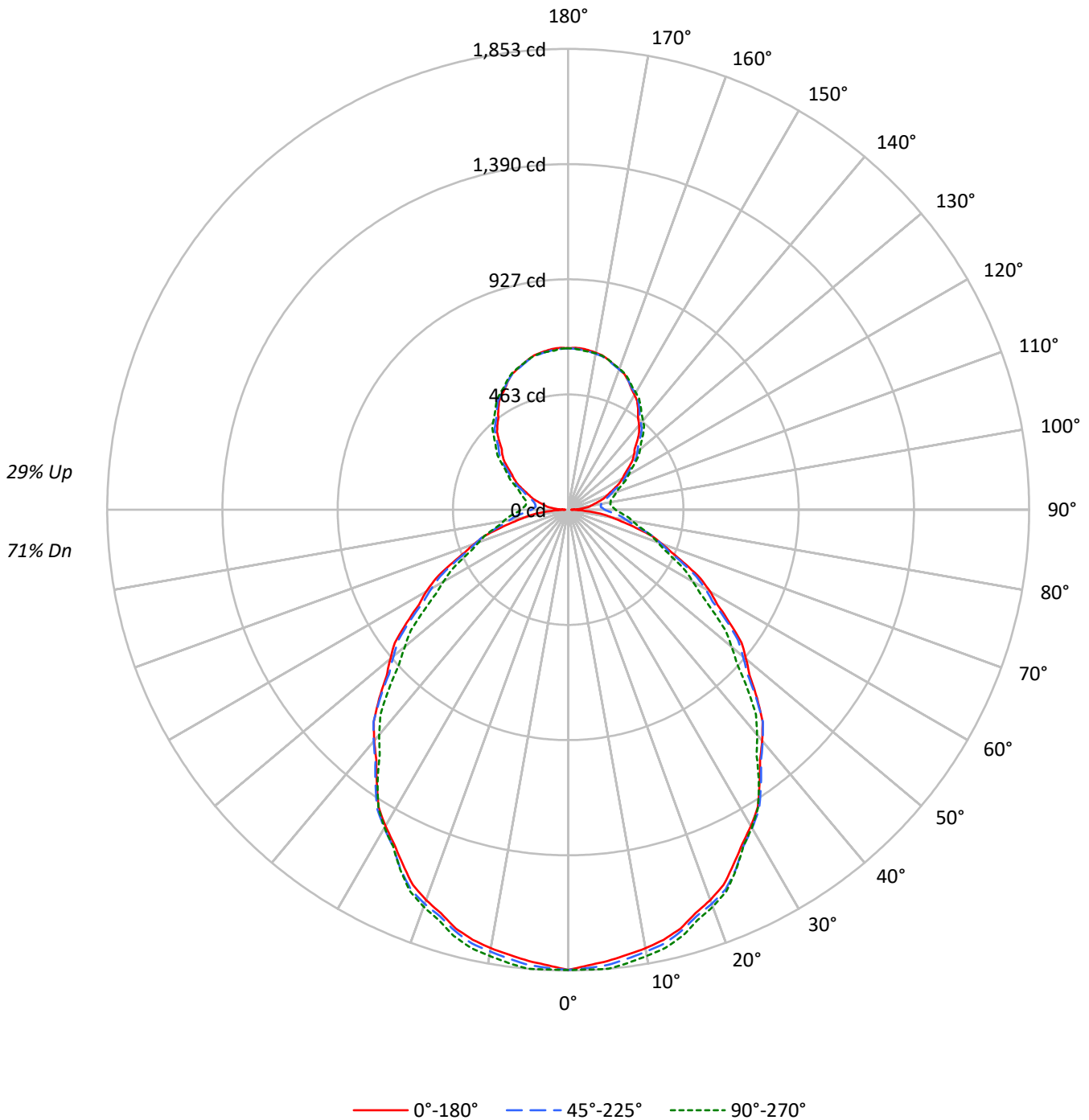
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 6687.9 lumens
Efficiency: N/A
Efficacy: 122.5 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-Direct

Input Watts (W): 54.6
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	0
RCR																		
0	112	112	112	112	106	106	106	106	95	95	95	85	85	85	76	76	76	71
1	102	97	93	89	96	92	88	85	83	80	77	74	72	70	66	64	63	59
2	93	85	78	73	88	81	75	70	73	68	64	65	61	58	58	55	53	49
3	85	75	67	61	80	71	64	59	64	58	54	58	53	49	52	48	45	42
4	78	66	58	52	73	63	56	50	57	51	46	51	47	43	46	42	39	36
5	72	59	51	45	67	57	49	43	51	45	40	46	41	37	42	38	34	31
6	66	53	45	39	62	51	43	38	46	40	35	42	37	33	38	34	30	28
7	61	48	40	34	58	46	39	33	42	36	31	38	33	29	35	30	27	25
8	57	44	36	31	54	42	35	30	39	32	28	35	30	26	32	28	24	22
9	53	40	33	27	50	39	32	27	36	29	25	32	27	23	30	25	22	20
10	50	37	30	25	47	36	29	24	33	27	23	30	25	21	27	23	20	18

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	29878	29878	29878
5°	29312	26380	25561
10°	28928	23479	22080
15°	28504	21027	19314
20°	27851	18863	16893
25°	26982	16837	14721
30°	26128	14892	12777
35°	24971	13105	10967
40°	23889	11462	9297
45°	22641	9852	7758
50°	21321	8358	6364
55°	19921	7029	5167
60°	18585	5776	4182
65°	16942	4649	3386
70°	15361	3703	2775
75°	13433	2952	2322
80°	11220	2361	1980
85°	8188	1951	1732

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 22641 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	174.7	2.6
10°-20°	495.7	7.4
20°-30°	731.9	10.9
30°-40°	841.7	12.6
40°-50°	816.7	12.2
50°-60°	685.4	10.2
60°-70°	501.3	7.5
70°-80°	322.7	4.8
80°-90°	188.3	2.8
90°-100°	135.1	2.0
100°-110°	162.3	2.4
110°-120°	221.4	3.3
120°-130°	281.5	4.2
130°-140°	316.1	4.7
140°-150°	312.1	4.7
150°-160°	264.0	3.9
160°-170°	175.7	2.6
170°-180°	61.5	0.9
0°-30°	1402.3	21.0
0°-40°	2244.0	33.6
0°-60°	3746.1	56.0
0°-90°	4758.4	71.1
90°-120°	518.7	7.8
90°-150°	1428.4	21.4
90°-180°	1930.0	28.9
0°-180°	6687.9	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1850	1850	1850	1850	1850	
5°	1822	1855	1837	1840	1853	173
15°	1743	1770	1754	1762	1775	490
25°	1573	1600	1594	1587	1597	725
35°	1341	1363	1351	1336	1336	840
45°	1074	1086	1067	1035	1019	828
55°	792	805	775	728	708	710
65°	523	529	506	478	469	520
75°	282	288	308	315	315	302
85°	86	120	188	217	223	91
90°	13	74	146	181	190	13
95°	57	69	131	167	174	54
105°	127	122	150	177	184	136
115°	208	208	223	236	240	206
125°	298	304	316	325	328	267
135°	393	402	409	420	424	303
145°	490	496	499	502	508	306
155°	572	575	573	574	577	263
165°	624	627	622	620	624	176
175°	651	653	645	642	642	62
180°	649	649	649	649	649	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1850.5	1850.5	1850.5	1850.5	1850.5
2.5°	1833.7	1860.3	1844.8	1848.4	1850.5
5°	1821.7	1854.9	1837.4	1840.3	1853.1
7.5°	1805.0	1836.2	1820.8	1823.6	1838.5
10°	1790.4	1821.0	1804.1	1808.9	1821.7
12.5°	1771.5	1801.2	1786.8	1792.2	1805.0
15°	1743.3	1770.2	1754.5	1761.9	1774.7
17.5°	1701.5	1729.8	1713.7	1717.5	1730.2
20°	1670.1	1696.4	1686.5	1686.1	1698.9
22.5°	1632.5	1660.8	1653.0	1646.4	1661.2
25°	1573.4	1600.3	1594.3	1586.7	1597.0
27.5°	1514.9	1536.2	1525.6	1517.1	1524.8
30°	1468.9	1493.2	1478.1	1469.1	1476.7
32.5°	1418.7	1443.6	1427.9	1416.7	1420.3
35°	1340.8	1363.3	1350.7	1335.6	1335.6
37.5°	1267.1	1283.1	1272.5	1249.7	1244.1
40°	1212.7	1230.8	1216.0	1189.0	1181.4
42.5°	1156.3	1174.3	1158.0	1128.3	1116.6
45°	1074.2	1086.5	1067.1	1034.7	1019.3
47.5°	989.5	1002.8	976.4	940.5	922.1
50°	933.1	947.9	916.9	877.7	857.3
52.5°	878.7	890.0	859.8	815.6	797.7
55°	791.9	804.9	775.0	728.2	707.9
57.5°	710.9	723.3	689.1	647.7	631.3
60°	658.6	669.0	635.3	594.1	578.2
62.5°	600.1	611.0	579.9	546.7	531.9
65°	522.7	529.3	506.1	478.3	468.8
67.5°	450.1	454.1	437.6	421.6	415.6
70°	399.9	403.9	395.9	387.3	381.8
72.5°	353.9	356.4	358.0	356.2	352.7
75°	282.3	287.7	307.5	314.8	315.1
77.5°	219.5	222.7	263.9	279.5	282.4
80°	177.7	187.2	237.5	259.3	262.8
82.5°	140.1	155.8	216.8	242.4	245.9
85°	86.3	120.3	187.9	217.1	223.1
87.5°	40.2	91.2	163.1	195.4	202.7
90°	12.7	74.3	146.5	181.0	190.3
92.5°	30.4	69.4	138.6	172.5	181.7
95°	57.1	68.7	131.4	167.1	173.7
97.5°	80.3	77.5	132.2	164.1	170.9
100°	94.1	87.6	135.4	165.2	173.0
102.5°	107.4	99.4	140.3	169.0	175.8
105°	127.4	121.5	150.2	177.4	184.5
107.5°	149.9	144.8	167.1	190.8	196.2
110°	164.9	162.9	181.0	201.5	207.4

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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	183.1	181.1	197.0	213.3	219.2
115°	207.8	208.4	223.0	236.2	239.5
117.5°	233.3	236.7	249.5	259.9	263.1
120°	252.2	256.5	267.3	277.1	279.8
122.5°	270.4	274.3	286.5	296.4	299.1
125°	297.8	304.2	316.2	325.3	328.0
127.5°	325.7	334.0	345.0	354.3	357.8
130°	345.7	354.4	363.7	373.6	377.7
132.5°	362.4	371.2	380.9	392.4	397.0
135°	392.8	401.6	409.4	419.8	424.5
137.5°	422.7	431.2	437.2	445.5	451.4
140°	443.1	450.5	454.8	462.6	467.9
142.5°	461.9	469.3	472.5	479.1	484.5
145°	490.0	496.1	499.0	502.5	507.9
147.5°	516.3	522.3	523.5	526.6	530.0
150°	533.4	538.8	538.9	540.4	543.7
152.5°	549.4	554.3	552.7	553.6	557.5
155°	572.0	575.4	572.7	573.5	576.8
157.5°	589.9	593.3	589.1	590.4	593.1
160°	600.9	604.3	599.6	600.3	603.0
162.5°	611.4	613.7	609.5	608.6	612.4
165°	624.4	627.1	622.3	620.3	624.4
167.5°	635.4	638.1	631.8	629.7	633.8
170°	640.9	643.6	636.8	634.1	638.2
172.5°	645.9	648.6	641.2	638.0	640.9
175°	650.6	653.3	645.1	642.3	642.3
177.5°	651.9	653.6	647.5	644.9	648.1
180°	649.2	649.2	649.2	649.2	649.2

(END OF REPORT)