

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: P644289

Luminaire Tested: CRQ4DIP-SR4F0-125D25U940-FLLFLL-1DUDD-WW

Issue Date: 2/20/2023



Test Information

Test Method: LM-79-2019
Report Number: P644289
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-SR4F0-125D25U940-FLLFLL-1DUDD-WW
Description: NEO-RAY CIRQUE SUSPENDED LED LUMINAIRE
DOWNLIGHT - CURVED FROSTED LENS - 1250 LUMENS PER FOOT
UPLIGHT - CURVED FROSTED LENS - 250 LUMENS PER FOOT
Light Source: 4000K CCT, 90 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

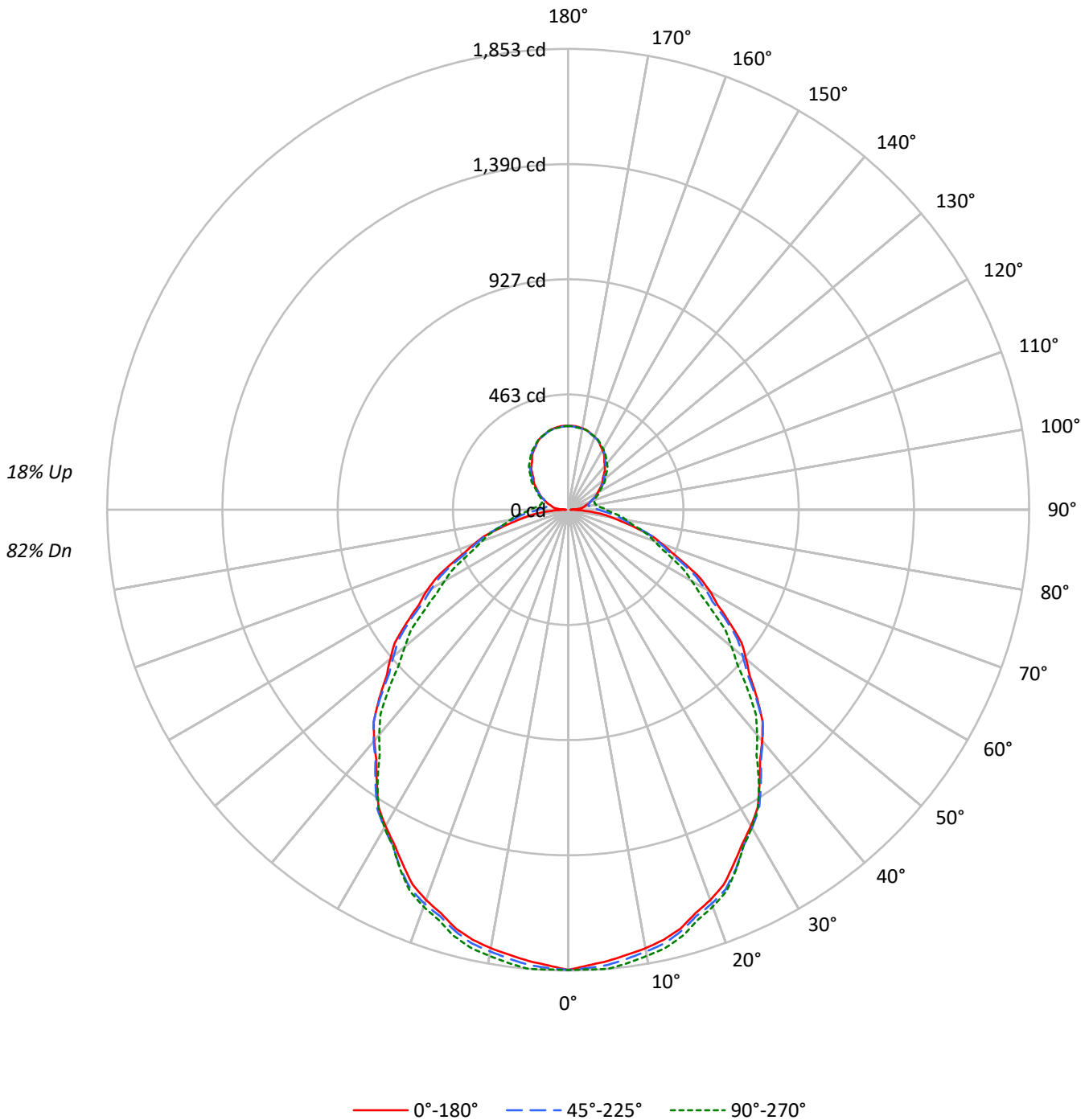
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 5764.1 lumens
Efficiency: N/A
Efficacy: 119.3 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): 48.3
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	115	115	115	115	110	110	110	110	101	101	101	93	93	93	85	85	85	82																				
1	104	100	95	92	100	96	92	88	88	85	82	81	79	77	75	73	71	68																				
2	95	87	81	75	91	84	78	73	77	72	68	71	68	64	66	63	60	57																				
3	87	77	69	63	83	74	67	61	68	63	58	63	58	54	59	55	51	48																				
4	80	68	60	53	76	66	58	52	61	55	49	57	51	47	52	48	44	42																				
5	73	61	53	46	70	59	51	45	55	48	43	51	45	41	47	43	39	36																				
6	68	55	47	40	65	53	45	39	50	43	38	46	40	36	43	38	34	32																				
7	63	50	42	36	60	48	41	35	45	38	34	42	36	32	40	34	31	28																				
8	59	46	37	32	56	44	37	31	41	35	30	39	33	29	36	31	28	26																				
9	55	42	34	29	52	41	33	28	38	32	27	36	30	26	34	29	25	23																				
10	51	39	31	26	49	38	30	26	35	29	25	33	28	24	31	26	23	21																				

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	29878	29878	29878
5°	29312	26380	25561
10°	28928	23475	22080
15°	28504	21022	19314
20°	27851	18860	16893
25°	26982	16837	14721
30°	26128	14885	12777
35°	24971	13095	10967
40°	23889	11459	9297
45°	22641	9849	7758
50°	21321	8349	6364
55°	19921	7023	5151
60°	18585	5764	4144
65°	16942	4619	3319
70°	15361	3650	2673
75°	13433	2860	2178
80°	11220	2212	1785
85°	8188	1730	1474

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	3.0
10°-20°	495.7	8.6
20°-30°	731.8	12.7
30°-40°	841.5	14.6
40°-50°	816.3	14.2
50°-60°	684.3	11.9
60°-70°	496.9	8.6
70°-80°	312.1	5.4
80°-90°	167.9	2.9
90°-100°	97.9	1.7
100°-110°	94.2	1.6
110°-120°	118.2	2.1
120°-130°	147.3	2.6
130°-140°	164.0	2.8
140°-150°	161.7	2.8
150°-160°	136.8	2.4
160°-170°	91.1	1.6
170°-180°	31.8	0.6
0°-30°	1402.1	24.3
0°-40°	2243.6	38.9
0°-60°	3744.2	65.0
0°-90°	4721.1	81.9
90°-120°	310.3	5.4
90°-150°	783.3	13.6
90°-180°	1043.0	18.1
0°-180°	5764.1	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	1362	1350	1336	1336	840
45°	1074	1086	1067	1035	1019	828
55°	792	804	774	727	706	710
65°	523	527	503	471	460	520
75°	282	285	298	298	296	302
85°	86	112	167	187	190	91
90°	10	63	121	147	153	11
95°	42	47	94	122	126	39
105°	79	68	84	103	110	84
115°	116	112	118	125	127	115
125°	159	160	165	169	170	143
135°	204	208	212	218	220	158
145°	254	257	258	260	263	159
155°	296	298	297	297	299	136
165°	324	325	322	321	324	91
175°	337	338	334	333	333	32
180°	336	336	336	336	336	



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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	1844.5	1848.4	1850.5
5°	1821.7	1854.9	1837.4	1840.3	1853.1
7.5°	1805.0	1835.9	1820.5	1823.6	1838.5
10°	1790.4	1821.0	1803.8	1808.9	1821.7
12.5°	1771.5	1800.7	1786.8	1792.2	1805.0
15°	1743.3	1769.6	1754.1	1761.9	1774.7
17.5°	1701.5	1729.4	1713.4	1717.5	1730.2
20°	1670.1	1696.0	1686.2	1686.1	1698.9
22.5°	1632.5	1660.4	1652.7	1646.4	1661.2
25°	1573.4	1599.7	1594.3	1586.7	1597.0
27.5°	1514.9	1535.0	1525.2	1517.1	1524.8
30°	1468.9	1492.6	1477.4	1469.1	1476.7
32.5°	1418.7	1442.7	1427.3	1416.7	1420.3
35°	1340.8	1362.3	1349.7	1335.6	1335.6
37.5°	1267.1	1281.8	1272.2	1249.7	1244.1
40°	1212.7	1229.5	1215.7	1189.0	1181.4
42.5°	1156.3	1173.0	1157.5	1128.3	1116.6
45°	1074.2	1085.5	1066.7	1034.7	1019.3
47.5°	989.5	1001.6	975.9	940.5	922.1
50°	933.1	946.9	915.9	877.7	857.3
52.5°	878.7	888.7	859.1	815.3	797.2
55°	791.9	803.6	774.4	727.2	705.6
57.5°	710.9	722.0	688.0	644.7	627.6
60°	658.6	667.7	633.9	589.7	572.9
62.5°	600.1	609.4	578.1	541.0	524.7
65°	522.7	527.4	502.8	470.6	459.5
67.5°	450.1	452.2	433.0	411.5	403.5
70°	399.9	402.0	390.3	375.6	367.8
72.5°	353.9	354.2	350.5	342.4	336.7
75°	282.3	285.1	297.9	297.8	295.5
77.5°	219.5	219.2	251.3	258.9	259.2
80°	177.7	182.6	222.5	236.4	236.9
82.5°	140.1	150.2	199.7	216.5	217.1
85°	86.3	112.5	166.6	186.8	189.9
87.5°	39.7	81.1	138.9	162.2	166.2
90°	10.3	63.2	121.2	146.7	152.7
92.5°	23.6	54.9	109.1	134.3	141.2
95°	42.2	47.0	94.5	121.9	126.5
97.5°	56.7	47.6	87.7	111.5	116.5
100°	63.9	51.9	85.3	107.1	113.6
102.5°	69.8	57.0	83.8	105.0	110.0
105°	78.6	68.2	84.1	103.3	109.5
107.5°	88.8	79.0	90.1	105.9	110.0
110°	95.5	88.4	96.3	109.5	113.8



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	105.0	97.8	104.6	113.6	117.9
115°	116.5	111.9	118.1	124.9	126.6
117.5°	128.2	126.5	131.5	135.7	137.4
120°	137.0	136.8	139.7	143.6	145.0
122.5°	146.4	145.0	149.7	153.6	155.0
125°	159.4	160.2	165.1	168.6	170.0
127.5°	172.3	175.6	180.0	183.6	185.4
130°	181.6	186.2	189.7	193.6	195.7
132.5°	188.3	192.8	197.6	203.3	205.7
135°	203.5	208.1	212.1	217.5	220.0
137.5°	219.0	223.4	226.5	230.8	233.9
140°	229.6	233.5	235.7	239.7	242.5
142.5°	239.3	243.2	244.8	248.2	251.0
145°	253.9	257.0	258.5	260.4	263.2
147.5°	267.5	270.6	271.3	272.9	274.6
150°	276.4	279.2	279.3	280.0	281.8
152.5°	284.7	287.2	286.4	286.9	288.9
155°	296.4	298.1	296.7	297.1	298.9
157.5°	305.7	307.4	305.2	305.9	307.3
160°	311.4	313.1	310.7	311.1	312.5
162.5°	316.8	318.0	315.8	315.4	317.3
165°	323.5	324.9	322.5	321.4	323.5
167.5°	329.2	330.6	327.4	326.3	328.4
170°	332.1	333.5	330.0	328.6	330.7
172.5°	334.7	336.1	332.2	330.6	332.1
175°	337.1	338.5	334.2	332.8	332.8
177.5°	337.8	338.7	335.5	334.1	335.8
180°	336.4	336.4	336.4	336.4	336.4

(END OF REPORT)