

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: P644313

Luminaire Tested: CRQ4DIP-SR4F0-125D75U940-FLLFLL-1DUDD-WW

Issue Date: 2/20/2023



Test Information

Test Method: LM-79-2019
Report Number: P644313
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-SR4F0-125D75U940-FLLFLL-1DUDD-WW
Description: NEO-RAY CIRQUE SUSPENDED LED LUMINAIRE
DOWNLIGHT - CURVED FROSTED LENS - 1250 LUMENS PER FOOT
UPLIGHT - CURVED FROSTED LENS - 750 LUMENS PER FOOT
Light Source: 4000K CCT, 90 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

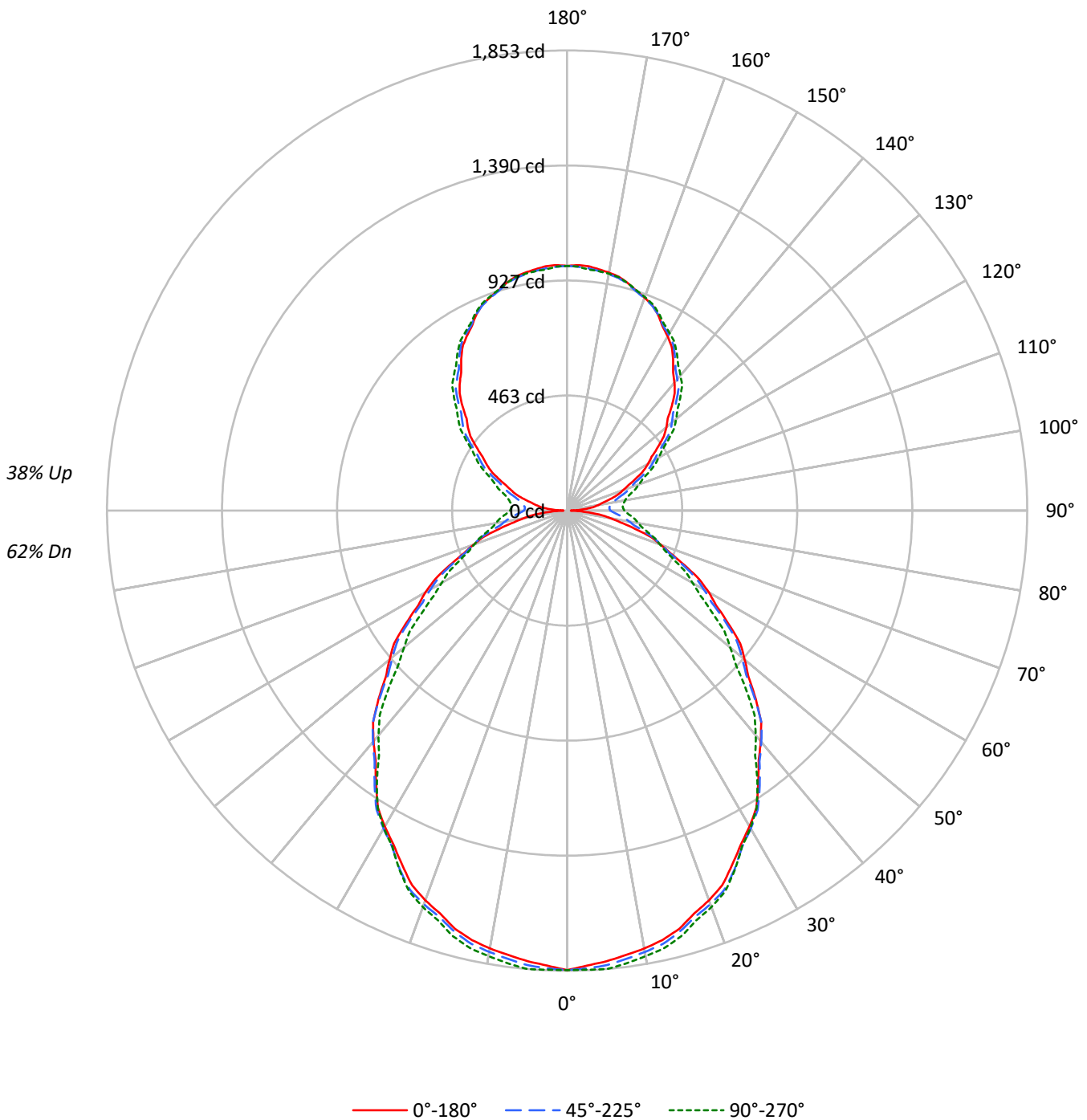
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 7680.2 lumens
Efficiency: N/A
Efficacy: 126.3 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): 60.8
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										
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	110	110	110	110	103	103	103	103	90	90	90	78	78	78	68	68	68	62																				
1	100	95	91	87	93	89	86	82	78	76	73	68	66	64	59	57	56	51																				
2	91	83	77	71	85	78	72	68	69	64	60	60	56	54	52	49	47	43																				
3	83	73	66	59	78	69	62	57	61	55	51	53	49	45	46	43	40	36																				
4	76	65	57	50	71	61	54	48	54	48	43	47	43	39	41	38	35	31																				
5	70	58	50	43	65	55	47	41	48	42	38	43	38	34	37	33	30	27																				
6	65	52	44	38	60	49	42	36	44	38	33	39	34	30	34	30	27	24																				
7	60	47	39	33	56	45	37	32	40	34	29	35	30	26	31	27	24	21																				
8	56	43	35	30	52	41	33	28	36	30	26	32	27	24	28	24	21	19																				
9	52	39	32	26	49	37	30	25	33	28	23	30	25	21	26	22	19	17																				
10	48	36	29	24	45	34	28	23	31	25	21	28	23	19	24	20	18	16																				

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	29878	29878	29878
5°	29312	26380	25561
10°	28928	23484	22080
15°	28504	21031	19314
20°	27851	18868	16893
25°	26982	16837	14721
30°	26128	14899	12777
35°	24971	13116	10967
40°	23889	11465	9297
45°	22641	9855	7758
50°	21321	8367	6364
55°	19921	7035	5186
60°	18585	5789	4224
65°	16942	4682	3459
70°	15361	3760	2884
75°	13433	3051	2477
80°	11220	2520	2190
85°	8188	2188	2009

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	2.3
10°-20°	495.8	6.5
20°-30°	732.0	9.5
30°-40°	842.0	11.0
40°-50°	817.0	10.6
50°-60°	686.6	8.9
60°-70°	506.1	6.6
70°-80°	334.0	4.3
80°-90°	210.1	2.7
90°-100°	175.1	2.3
100°-110°	235.4	3.1
110°-120°	332.1	4.3
120°-130°	425.6	5.5
130°-140°	479.5	6.2
140°-150°	473.6	6.2
150°-160°	400.6	5.2
160°-170°	266.7	3.5
170°-180°	93.3	1.2
0°-30°	1402.5	18.3
0°-40°	2244.5	29.2
0°-60°	3748.1	48.8
0°-90°	4798.3	62.5
90°-120°	742.6	9.7
90°-150°	2121.3	27.6
90°-180°	2882.0	37.5
0°-180°	7680.2	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	1771	1755	1762	1775	490
25°	1573	1601	1594	1587	1597	725
35°	1341	1364	1352	1336	1336	840
45°	1074	1088	1067	1035	1019	828
55°	792	806	776	729	710	710
65°	523	531	510	486	479	520
75°	282	290	318	333	336	302
85°	86	129	211	250	259	91
90°	15	86	174	218	231	15
95°	73	92	171	216	224	71
105°	180	179	221	257	265	192
115°	306	312	336	356	361	304
125°	447	459	478	494	498	400
135°	596	609	621	637	644	460
145°	744	753	757	763	771	464
155°	868	873	869	870	875	399
165°	948	952	944	941	948	267
175°	987	991	979	975	975	94
180°	985	985	985	985	985	

TEST NUMBER: P644313

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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	1845.0	1848.4	1850.5
5°	1821.7	1854.9	1837.4	1840.3	1853.1
7.5°	1805.0	1836.5	1821.2	1823.6	1838.5
10°	1790.4	1821.0	1804.5	1808.9	1821.7
12.5°	1771.5	1801.8	1786.9	1792.2	1805.0
15°	1743.3	1770.9	1754.8	1761.9	1774.7
17.5°	1701.5	1730.1	1714.0	1717.5	1730.2
20°	1670.1	1696.7	1686.9	1686.1	1698.9
22.5°	1632.5	1661.1	1653.4	1646.4	1661.2
25°	1573.4	1601.0	1594.3	1586.7	1597.0
27.5°	1514.9	1537.5	1526.1	1517.1	1524.8
30°	1468.9	1493.9	1478.8	1469.1	1476.7
32.5°	1418.7	1444.6	1428.6	1416.7	1420.3
35°	1340.8	1364.3	1351.8	1335.6	1335.6
37.5°	1267.1	1284.5	1272.9	1249.7	1244.1
40°	1212.7	1232.2	1216.4	1189.0	1181.4
42.5°	1156.3	1175.7	1158.7	1128.3	1116.6
45°	1074.2	1087.5	1067.4	1034.7	1019.3
47.5°	989.5	1004.2	976.9	940.5	922.1
50°	933.1	948.9	917.9	877.7	857.3
52.5°	878.7	891.3	860.6	815.9	798.3
55°	791.9	806.3	775.7	729.3	710.4
57.5°	710.9	724.7	690.2	651.0	635.3
60°	658.6	670.4	636.7	598.7	583.9
62.5°	600.1	612.7	581.9	552.8	539.6
65°	522.7	531.4	509.7	486.5	478.8
67.5°	450.1	456.2	442.6	432.4	428.6
70°	399.9	406.0	402.0	399.8	396.8
72.5°	353.9	358.8	366.0	371.0	370.0
75°	282.3	290.5	317.8	333.1	336.1
77.5°	219.5	226.5	277.4	301.6	307.4
80°	177.7	192.0	253.5	284.0	290.7
82.5°	140.1	161.8	235.1	270.2	276.9
85°	86.3	128.7	210.7	249.6	258.8
87.5°	40.7	101.9	189.0	231.1	241.9
90°	15.2	86.2	173.6	217.8	230.6
92.5°	37.7	85.1	170.2	213.6	225.1
95°	73.2	92.1	171.0	215.6	224.3
97.5°	105.6	109.6	180.1	220.5	229.3
100°	126.5	126.0	189.3	227.7	236.9
102.5°	147.9	144.9	201.0	237.7	246.5
105°	179.9	178.9	221.2	256.9	265.1
107.5°	215.6	215.5	249.7	281.9	288.8
110°	239.5	243.1	271.9	300.3	308.0

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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	267.1	270.7	296.2	320.4	328.1
115°	305.9	312.0	335.7	355.7	360.8
117.5°	346.3	355.1	376.2	393.3	398.3
120°	376.0	385.2	404.2	420.5	424.6
122.5°	403.6	413.2	433.5	449.8	453.9
125°	446.6	458.8	478.5	493.7	497.8
127.5°	490.5	504.2	522.2	537.7	543.0
130°	521.9	535.2	550.6	567.0	573.1
132.5°	549.5	562.8	577.8	595.5	602.4
135°	596.1	609.4	621.2	637.1	644.2
137.5°	641.5	654.4	663.5	676.0	685.0
140°	672.5	683.7	690.3	701.9	710.1
142.5°	700.9	712.2	717.0	727.1	735.2
145°	743.6	752.8	757.2	762.6	770.8
147.5°	783.5	792.5	794.4	799.1	804.3
150°	809.5	817.7	817.9	820.1	825.2
152.5°	833.8	841.1	838.8	840.2	846.1
155°	868.1	873.2	869.1	870.3	875.4
157.5°	895.2	900.4	894.0	896.0	900.1
160°	912.0	917.1	909.9	911.0	915.1
162.5°	927.9	931.4	924.9	923.6	929.3
165°	947.5	951.6	944.4	941.4	947.5
167.5°	964.3	968.4	958.8	955.6	961.8
170°	972.6	976.7	966.4	962.3	968.5
172.5°	980.2	984.3	973.1	968.1	972.6
175°	987.3	991.4	978.9	974.7	974.7
177.5°	989.4	991.8	982.7	978.6	983.5
180°	985.2	985.2	985.2	985.2	985.2

(END OF REPORT)