

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: P644298

Luminaire Tested: CRQ4DIP-SR4F0-125D50U930-FLLOOB-1DUDD-WW

Issue Date: 2/20/2023



Test Information

Test Method: LM-79-2019
Report Number: P644298
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2203-563-26, G2-2206-689-14)
Test Lab: INNOVATION CENTER
Issue Date: 2/20/2023
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: NEO-RAY
Catalog Number: CRQ4DIP-SR4F0-125D50U930-FLLOOB-1DUDD-WW
Description: NEO-RAY CIRQUE SUSPENDED LED LUMINAIRE
DOWNLIGHT - CURVED FROSTED LENS - 1250 LUMENS PER FOOT
UPLIGHT - BATWING OPTIC - 500 LUMENS PER FOOT
Light Source: 3000K CCT, 90 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

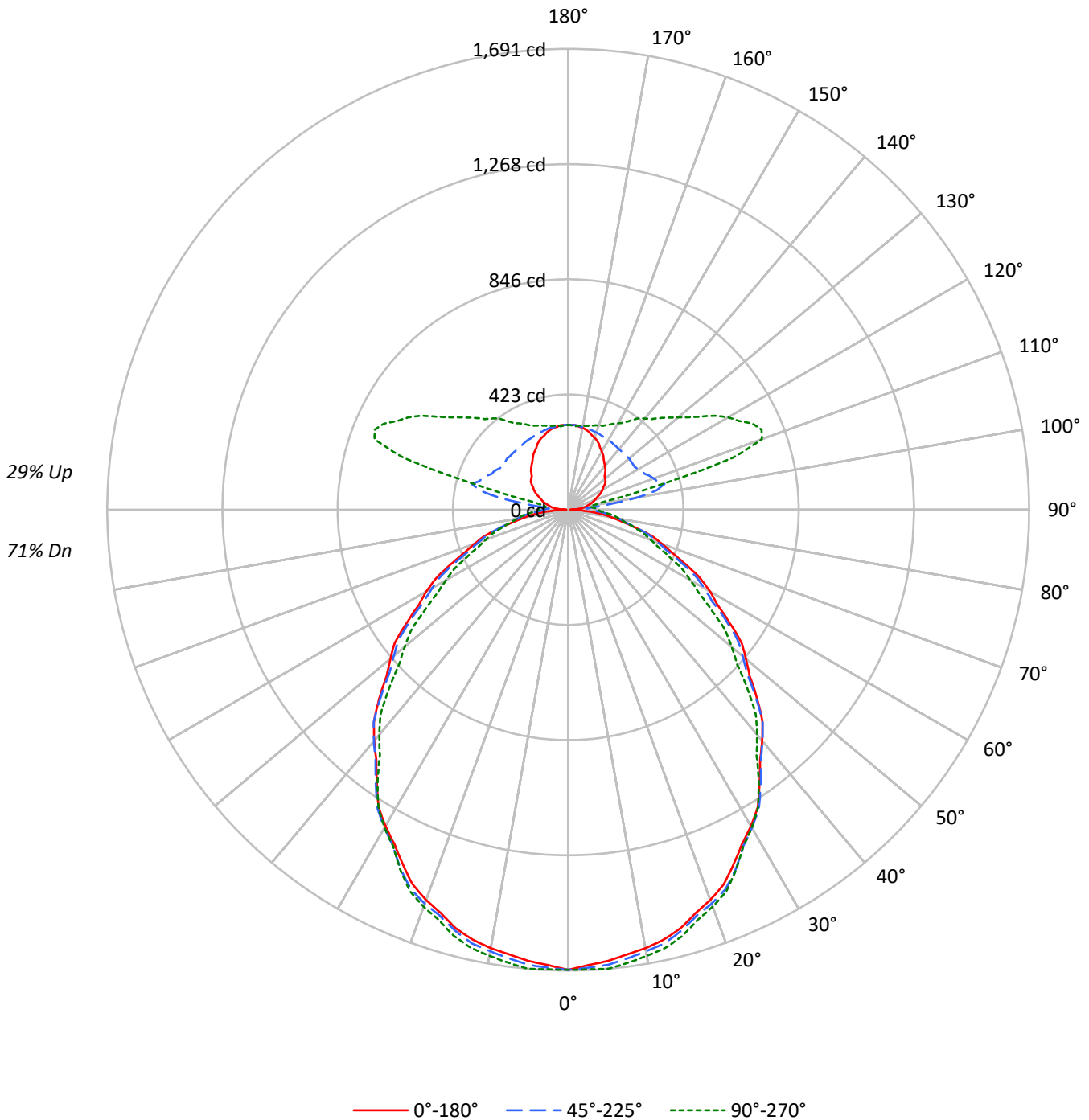
Lumens per Lamp: N/A
Luminaire Lumens: 6025.6 lumens
Efficiency: N/A
Efficacy: 110.4 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 1.19 / 1.3
Luminous Opening: Rectangular w/ Sides (W: 0.17' x L: 4' x H: 0.33')
CIE Type: Semi-Direct

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	75	75	75	71
1	102	98	93	90	97	93	89	86	83	80	78	74	72	70	66	65	63	59
2	93	85	79	74	88	81	75	70	73	68	64	65	62	59	58	56	53	50
3	85	75	68	61	80	71	65	59	64	59	54	58	54	50	52	48	46	42
4	78	67	59	52	74	64	56	50	57	51	47	52	47	43	46	43	39	36
5	72	60	51	45	68	57	49	44	52	45	40	47	41	37	42	38	34	32
6	66	54	45	39	63	51	44	38	47	40	35	42	37	33	38	34	30	28
7	61	49	40	35	58	47	39	34	42	36	31	39	33	29	35	31	27	25
8	57	44	36	31	54	42	35	30	39	33	28	35	30	26	32	28	24	22
9	53	41	33	28	50	39	32	27	36	30	25	33	27	24	30	25	22	20
10	50	37	30	25	47	36	29	24	33	27	23	30	25	22	28	23	20	18

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	27259	27259	27259
5°	26744	24068	23321
10°	26393	21414	20146
15°	26007	19177	17622
20°	25411	17204	15413
25°	24619	15361	13431
30°	23839	13574	11658
35°	22782	11939	10006
40°	21797	10452	8483
45°	20658	8982	7078
50°	19452	7608	5807
55°	18175	6402	4683
60°	16957	5247	3743
65°	15457	4184	2963
70°	14017	3278	2340
75°	12253	2518	1846
80°	10241	1873	1437
85°	7467	1363	1092

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 20658 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	159.4	2.6
10°-20°	452.2	7.5
20°-30°	667.5	11.1
30°-40°	767.5	12.7
40°-50°	744.5	12.4
50°-60°	623.2	10.3
60°-70°	449.0	7.5
70°-80°	274.4	4.6
80°-90°	134.0	2.2
90°-100°	91.0	1.5
100°-110°	291.9	4.8
110°-120°	377.0	6.3
120°-130°	304.1	5.0
130°-140°	242.7	4.0
140°-150°	191.1	3.2
150°-160°	139.7	2.3
160°-170°	86.8	1.4
170°-180°	29.6	0.5
0°-30°	1279.1	21.2
0°-40°	2046.6	34.0
0°-60°	3414.3	56.7
0°-90°	4271.7	70.9
90°-120°	759.8	12.6
90°-150°	1497.8	24.9
90°-180°	1754.0	29.1
0°-180°	6025.6	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1688	1688	1688	1688	1688	
5°	1662	1692	1676	1679	1691	158
15°	1591	1614	1600	1608	1619	447
25°	1436	1459	1455	1448	1457	661
35°	1223	1242	1230	1219	1219	766
45°	980	989	973	944	930	755
55°	722	732	706	662	642	648
65°	477	479	456	422	410	474
75°	258	258	262	255	250	275
85°	79	95	131	141	141	83
90°	7	49	90	106	108	10
95°	40	51	66	84	91	38
105°	84	103	366	474	326	89
115°	124	138	310	640	747	123
125°	164	181	290	503	595	146
135°	192	213	290	414	476	148
145°	227	246	292	361	399	143
155°	266	276	298	327	343	122
165°	296	300	305	313	319	83
175°	311	313	311	309	307	29
180°	311	311	311	311	311	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1688.3	1688.3	1688.3	1688.3	1688.3
2.5°	1673.1	1697.3	1682.6	1686.5	1688.3
5°	1662.1	1692.4	1676.4	1679.1	1690.7
7.5°	1646.8	1674.8	1660.7	1663.8	1677.4
10°	1633.5	1661.5	1645.4	1650.4	1662.1
12.5°	1616.3	1642.4	1630.1	1635.2	1646.8
15°	1590.6	1613.9	1600.1	1607.5	1619.2
17.5°	1552.4	1577.6	1562.9	1567.0	1578.6
20°	1523.8	1547.1	1538.1	1538.4	1550.0
22.5°	1489.5	1514.6	1507.6	1502.2	1515.7
25°	1435.6	1458.9	1454.6	1447.7	1457.0
27.5°	1382.1	1399.4	1391.2	1384.2	1391.2
30°	1340.2	1361.2	1347.3	1340.3	1347.3
32.5°	1294.4	1315.4	1301.5	1292.6	1295.8
35°	1223.3	1242.0	1230.5	1218.6	1218.6
37.5°	1156.1	1168.2	1160.4	1140.2	1135.1
40°	1106.5	1120.5	1108.9	1084.9	1077.9
42.5°	1055.0	1069.0	1055.4	1029.4	1018.7
45°	980.1	989.4	972.9	944.0	930.0
47.5°	902.8	912.6	890.0	858.1	841.3
50°	851.3	863.0	834.6	800.8	782.2
52.5°	801.7	809.6	783.1	743.6	726.8
55°	722.5	731.9	705.9	662.5	641.5
57.5°	648.6	657.5	626.7	585.3	569.0
60°	600.9	607.9	577.1	533.8	517.5
62.5°	547.5	554.5	525.6	488.0	471.7
65°	476.9	479.3	455.5	421.8	410.2
67.5°	410.6	410.6	390.6	365.6	356.3
70°	364.9	364.9	350.5	331.3	321.9
72.5°	322.9	321.0	312.4	298.9	291.4
75°	257.5	257.5	262.3	255.1	250.4
77.5°	200.3	196.6	217.0	216.0	213.7
80°	162.2	162.2	188.4	193.1	190.8
82.5°	127.8	131.5	165.5	172.1	169.8
85°	78.7	95.0	131.2	140.7	140.7
87.5°	35.8	64.6	103.8	116.6	117.1
90°	7.2	48.7	89.8	106.1	108.4
92.5°	19.5	42.4	79.2	97.2	102.9
95°	39.5	50.6	65.7	84.5	90.7
97.5°	56.4	69.9	151.4	84.1	82.3
100°	65.8	82.0	259.6	108.6	90.3
102.5°	73.3	91.1	333.5	212.4	134.1
105°	84.5	103.1	366.3	474.3	325.8
107.5°	95.8	106.8	345.0	672.3	632.9
110°	103.3	114.6	333.7	701.9	755.9

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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	112.7	124.0	324.3	678.5	767.8
115°	124.4	138.0	310.2	639.6	746.8
117.5°	136.0	152.1	306.2	595.7	706.0
120°	145.1	161.5	298.0	562.6	677.4
122.5°	152.9	169.0	290.2	535.7	641.4
125°	164.2	180.6	290.2	503.3	595.2
127.5°	172.7	192.3	290.6	465.7	556.4
130°	177.1	200.0	292.2	440.5	526.7
132.5°	181.1	204.1	290.2	429.2	500.0
135°	191.9	212.9	289.8	414.5	475.8
137.5°	201.7	224.3	289.8	398.2	450.7
140°	209.5	230.6	289.8	388.7	436.6
142.5°	217.3	236.9	291.3	377.7	422.5
145°	227.1	246.3	291.7	361.1	399.4
147.5°	238.9	255.7	294.1	349.2	378.7
150°	246.7	262.0	295.6	341.2	366.1
152.5°	254.5	268.3	295.6	334.9	355.2
155°	266.3	275.8	297.6	327.3	342.6
157.5°	275.7	284.9	299.9	322.5	333.6
160°	281.9	289.6	301.5	319.4	328.9
162.5°	286.6	294.3	303.1	317.7	324.2
165°	295.6	299.5	305.4	313.4	319.1
167.5°	300.7	304.2	307.4	311.4	314.8
170°	305.4	307.3	307.4	311.3	313.3
172.5°	307.0	310.4	309.0	309.8	311.7
175°	311.3	313.2	311.3	309.3	307.4
177.5°	311.3	312.8	311.3	311.3	309.7
180°	311.3	311.3	311.3	311.3	311.3

(END OF REPORT)