

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: P644297

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

Issue Date: 2/20/2023



Test Information

Test Method: LM-79-2019
Report Number: P644297
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-SR4F0-125D50U930-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: 3000K CCT, 90 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

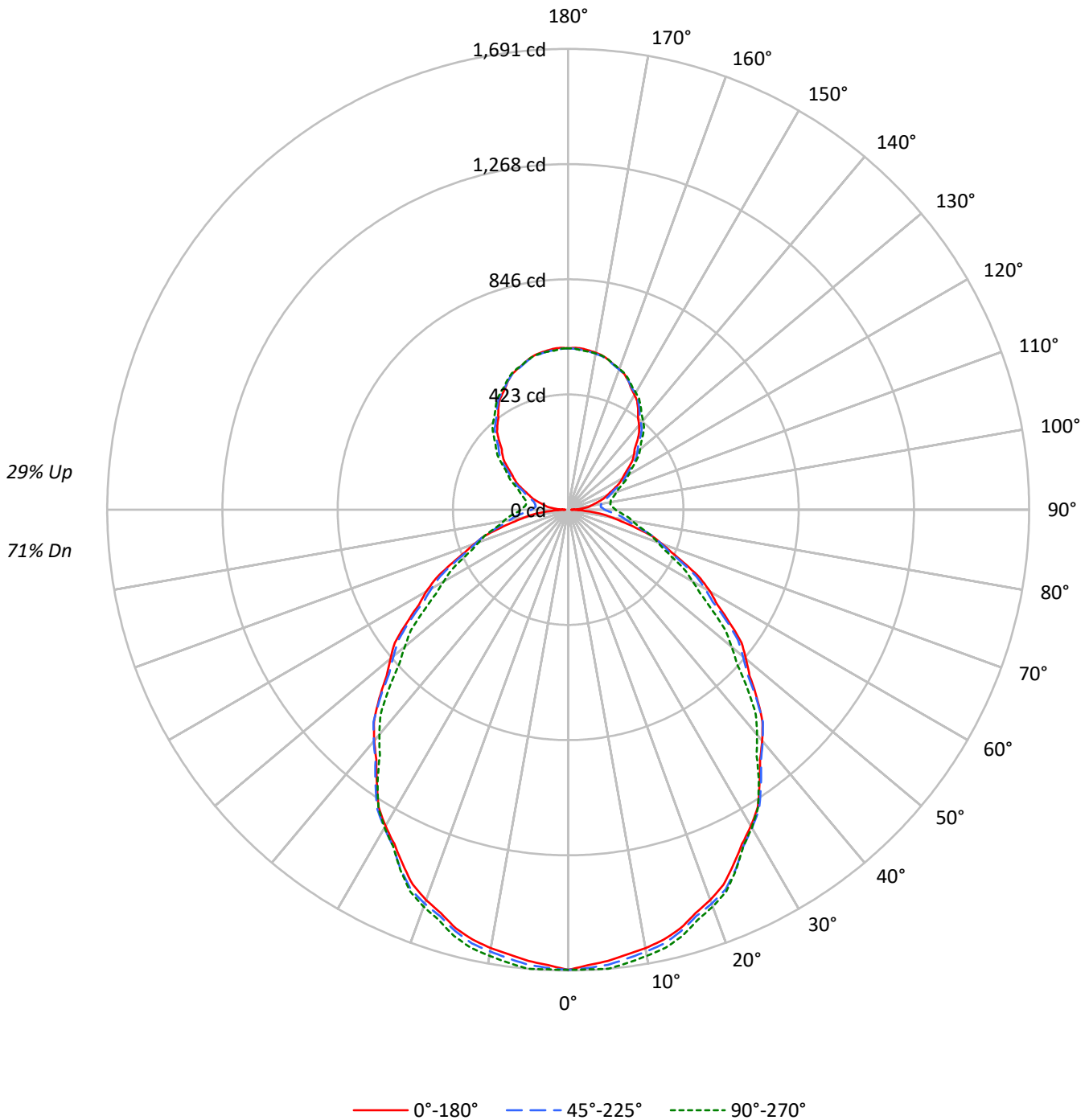
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 6101.9 lumens
Efficiency: N/A
Efficacy: 111.8 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°	27259	27259	27259
5°	26744	24068	23321
10°	26393	21422	20146
15°	26007	19184	17622
20°	25411	17210	15413
25°	24619	15361	13431
30°	23839	13587	11658
35°	22782	11957	10006
40°	21797	10458	8483
45°	20658	8989	7078
50°	19452	7625	5807
55°	18175	6413	4715
60°	16957	5270	3816
65°	15457	4242	3090
70°	14017	3378	2532
75°	12253	2693	2119
80°	10241	2154	1806
85°	7467	1780	1581

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°	452.3	7.4
20°-30°	667.8	10.9
30°-40°	768.0	12.6
40°-50°	745.1	12.2
50°-60°	625.4	10.2
60°-70°	457.4	7.5
70°-80°	294.4	4.8
80°-90°	171.8	2.8
90°-100°	123.2	2.0
100°-110°	148.1	2.4
110°-120°	202.0	3.3
120°-130°	256.8	4.2
130°-140°	288.4	4.7
140°-150°	284.7	4.7
150°-160°	240.8	3.9
160°-170°	160.3	2.6
170°-180°	56.1	0.9
0°-30°	1279.4	21.0
0°-40°	2047.4	33.6
0°-60°	3417.9	56.0
0°-90°	4341.4	71.1
90°-120°	473.3	7.8
90°-150°	1303.2	21.4
90°-180°	1760.0	28.8
0°-180°	6101.9	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	1615	1601	1608	1619	447
25°	1436	1460	1455	1448	1457	661
35°	1223	1244	1232	1219	1219	766
45°	980	991	974	944	930	755
55°	722	734	707	664	646	648
65°	477	483	462	436	428	474
75°	258	262	280	287	288	275
85°	79	110	171	198	204	83
90°	12	68	134	165	174	12
95°	52	63	120	152	158	50
105°	116	111	137	162	168	124
115°	190	190	204	216	219	188
125°	272	278	288	297	299	243
135°	358	366	374	383	387	277
145°	447	453	455	458	463	279
155°	522	525	522	523	526	240
165°	570	572	568	566	570	161
175°	594	596	588	586	586	56
180°	592	592	592	592	592	



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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	1683.1	1686.5	1688.3
5°	1662.1	1692.4	1676.4	1679.1	1690.7
7.5°	1646.8	1675.3	1661.3	1663.8	1677.4
10°	1633.5	1661.5	1646.0	1650.4	1662.1
12.5°	1616.3	1643.4	1630.3	1635.2	1646.8
15°	1590.6	1615.1	1600.7	1607.5	1619.2
17.5°	1552.4	1578.2	1563.5	1567.0	1578.6
20°	1523.8	1547.7	1538.7	1538.4	1550.0
22.5°	1489.5	1515.2	1508.2	1502.2	1515.7
25°	1435.6	1460.1	1454.6	1447.7	1457.0
27.5°	1382.1	1401.6	1392.0	1384.2	1391.2
30°	1340.2	1362.4	1348.6	1340.3	1347.3
32.5°	1294.4	1317.1	1302.8	1292.6	1295.8
35°	1223.3	1243.8	1232.4	1218.6	1218.6
37.5°	1156.1	1170.7	1161.0	1140.2	1135.1
40°	1106.5	1122.9	1109.5	1084.9	1077.9
42.5°	1055.0	1071.4	1056.6	1029.4	1018.7
45°	980.1	991.3	973.6	944.0	930.0
47.5°	902.8	915.0	890.8	858.1	841.3
50°	851.3	864.8	836.5	800.8	782.2
52.5°	801.7	812.0	784.5	744.1	727.8
55°	722.5	734.3	707.1	664.4	645.9
57.5°	648.6	659.9	628.7	591.0	576.0
60°	600.9	610.4	579.6	542.0	527.5
62.5°	547.5	557.5	529.1	498.8	485.3
65°	476.9	482.9	461.8	436.3	427.8
67.5°	410.6	414.3	399.3	384.7	379.2
70°	364.9	368.5	361.2	353.4	348.3
72.5°	322.9	325.2	326.6	325.0	321.8
75°	257.5	262.5	280.5	287.2	287.5
77.5°	200.3	203.2	240.8	255.0	257.7
80°	162.2	170.8	216.7	236.6	239.8
82.5°	127.8	142.1	197.8	221.2	224.4
85°	78.7	109.8	171.4	198.0	203.6
87.5°	36.6	83.2	148.8	178.3	184.9
90°	11.6	67.8	133.6	165.1	173.6
92.5°	27.7	63.4	126.4	157.4	165.8
95°	52.1	62.7	119.9	152.4	158.4
97.5°	73.3	70.7	120.6	149.7	155.9
100°	85.8	80.0	123.6	150.7	157.9
102.5°	98.0	90.7	128.0	154.2	160.4
105°	116.3	110.9	137.0	161.8	168.3
107.5°	136.8	132.1	152.4	174.1	179.0
110°	150.5	148.7	165.1	183.8	189.2

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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	167.1	165.3	179.7	194.6	200.0
115°	189.6	190.1	203.5	215.5	218.6
117.5°	212.9	216.0	227.6	237.1	240.1
120°	230.1	234.1	243.8	252.8	255.3
122.5°	246.7	250.3	261.4	270.4	272.9
125°	271.7	277.5	288.5	296.8	299.3
127.5°	297.2	304.8	314.8	323.3	326.5
130°	315.4	323.4	331.9	340.9	344.6
132.5°	330.7	338.7	347.6	358.0	362.2
135°	358.4	366.4	373.5	383.0	387.3
137.5°	385.7	393.4	398.9	406.4	411.8
140°	404.3	411.1	415.0	422.0	426.9
142.5°	421.4	428.2	431.1	437.1	442.0
145°	447.1	452.6	455.2	458.5	463.4
147.5°	471.1	476.5	477.6	480.5	483.5
150°	486.7	491.6	491.7	493.0	496.1
152.5°	501.3	505.7	504.3	505.1	508.7
155°	521.9	525.0	522.5	523.2	526.3
157.5°	538.2	541.3	537.5	538.7	541.1
160°	548.3	551.4	547.0	547.7	550.2
162.5°	557.8	559.9	556.1	555.3	558.7
165°	569.7	572.1	567.8	566.0	569.7
167.5°	579.7	582.2	576.5	574.5	578.2
170°	584.8	587.2	581.0	578.6	582.2
172.5°	589.3	591.7	585.0	582.1	584.8
175°	593.6	596.0	588.5	586.0	586.0
177.5°	594.8	596.3	590.8	588.3	591.3
180°	592.3	592.3	592.3	592.3	592.3

(END OF REPORT)