

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: P644468

Luminaire Tested: CRQ4DP-SR4F0-125D930-FLL-1DUDD-WW

Issue Date: 2/20/2023



Test Information

Test Method: LM-79-2019
Report Number: P644468
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2206-689-14)
Test Lab: INNOVATION CENTER
Issue Date: 2/20/2023
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: NEO-RAY
Catalog Number: CRQ4DP-SR4F0-125D930-FLL-1DUDD-WW
Description: NEO-RAY CIRQUE SUSPENDED LED LUMINAIRE
DOWNLIGHT - CURVED FROSTED LENS - 1250 LUMENS PER FOOT
DIRECT ONLY
Light Source: 3000K CCT, 90 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

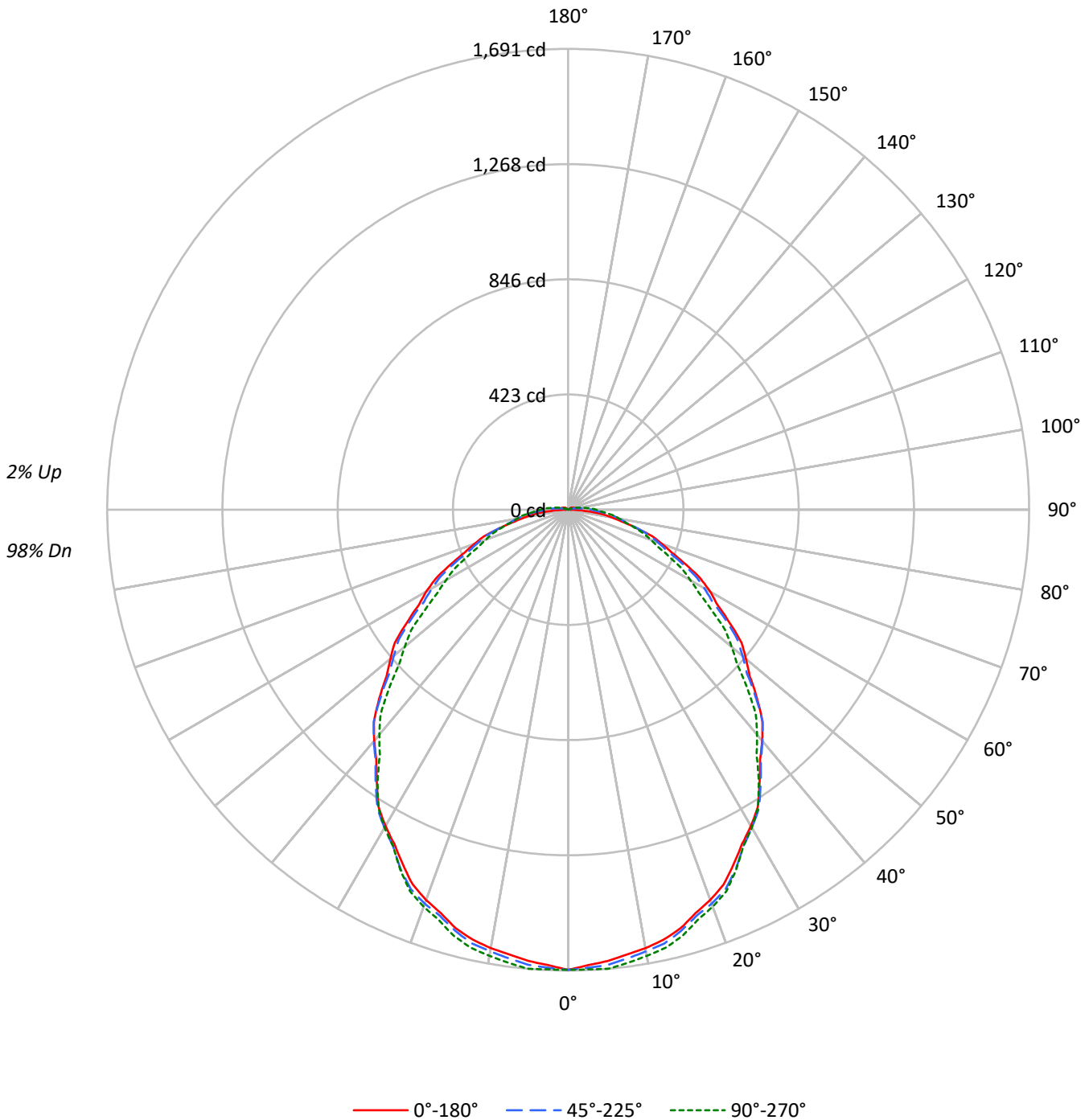
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 4352.7 lumens
Efficiency: N/A
Efficacy: 108.8 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: 0.02')
CIE Type: Direct

Input Watts (W): 40
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				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	119	119	119	119	116	116	116	116	110	110	110		105	105	105		100	100	100	98
1	108	103	99	95	105	101	97	93	96	93	90		92	89	87		88	86	84	82
2	99	91	84	78	96	88	82	77	85	79	75		81	77	73		78	74	71	69
3	90	80	72	65	88	78	71	65	75	69	63		72	67	62		69	65	61	58
4	83	71	62	56	80	70	62	55	67	60	54		64	58	53		62	57	53	50
5	76	64	55	48	74	63	54	48	60	53	47		58	52	47		56	50	46	44
6	71	58	49	43	69	57	48	42	55	47	42		53	46	41		51	45	41	39
7	66	52	44	38	64	51	43	38	50	42	37		48	42	37		47	41	36	34
8	61	48	40	34	60	47	39	34	46	38	33		44	38	33		43	37	33	31
9	57	44	36	31	56	43	36	30	42	35	30		41	35	30		40	34	30	28
10	54	41	33	28	52	40	33	28	39	32	27		38	32	27		37	31	27	25

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	27259	27259	27259
5°	26924	26910	27047
10°	26752	26461	26548
15°	26543	25977	26020
20°	26123	25406	25253
25°	25501	24644	24260
30°	24896	23612	23117
35°	24007	22512	21736
40°	23200	21389	20179
45°	22240	20005	18465
50°	21225	18525	16668
55°	20158	17163	14872
60°	19196	15642	13265
65°	17979	14069	11857
70°	16935	12693	10761
75°	15697	11586	10014
80°	14565	10769	9586
85°	13607	10741	9602

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 22240 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	159.4	3.7
10°-20°	452.2	10.4
20°-30°	667.5	15.3
30°-40°	767.5	17.6
40°-50°	744.5	17.1
50°-60°	623.2	14.3
60°-70°	449.0	10.3
70°-80°	274.4	6.3
80°-90°	133.3	3.1
90°-100°	52.7	1.2
100°-110°	19.1	0.4
110°-120°	6.7	0.2
120°-130°	2.8	0.1
130°-140°	0.3	0.0
140°-150°	0.0	0.0
150°-160°	0.0	0.0
160°-170°	0.0	0.0
170°-180°	0.0	0.0
0°-30°	1279.1	29.4
0°-40°	2046.6	47.0
0°-60°	3414.3	78.4
0°-90°	4271.0	98.1
90°-120°	78.5	1.8
90°-150°	81.7	1.9
90°-180°	82.0	1.9
0°-180°	4352.7	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	47	86	100	102	9
95°	24	22	50	67	69	20
105°	24	10	12	22	26	25
115°	17	7	5	5	5	16
125°	10	5	2	0	0	8
135°	0	0	0	0	0	1
145°	0	0	0	0	0	0
155°	0	0	0	0	0	0
165°	0	0	0	0	0	0
175°	0	0	0	0	0	0
180°	0	0	0	0	0	0

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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	64.2	103.0	115.4	115.9
90°	7.2	46.8	85.8	100.2	102.5
92.5°	14.8	35.8	70.6	85.0	89.2
95°	23.8	21.5	50.1	66.8	69.2
97.5°	28.6	14.2	36.2	50.1	52.9
100°	28.6	12.3	28.6	40.6	45.3
102.5°	26.7	10.4	21.0	33.0	35.8
105°	23.8	9.9	11.9	21.6	26.2
107.5°	21.0	7.5	6.7	13.4	15.7
110°	19.1	7.4	4.8	9.6	11.9



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	19.1	7.4	4.8	5.8	8.1
115°	16.7	7.4	4.8	4.8	4.8
117.5°	13.8	7.3	4.3	1.9	1.9
120°	11.9	7.3	2.4	0.0	0.0
122.5°	11.9	5.4	2.4	0.0	0.0
125°	9.5	4.9	2.4	0.0	0.0
127.5°	6.7	4.8	2.4	0.0	0.0
130°	4.8	4.8	2.4	0.0	0.0
132.5°	1.0	1.0	0.5	0.0	0.0
135°	0.0	0.0	0.0	0.0	0.0
137.5°	0.0	0.0	0.0	0.0	0.0
140°	0.0	0.0	0.0	0.0	0.0
142.5°	0.0	0.0	0.0	0.0	0.0
145°	0.0	0.0	0.0	0.0	0.0
147.5°	0.0	0.0	0.0	0.0	0.0
150°	0.0	0.0	0.0	0.0	0.0
152.5°	0.0	0.0	0.0	0.0	0.0
155°	0.0	0.0	0.0	0.0	0.0
157.5°	0.0	0.0	0.0	0.0	0.0
160°	0.0	0.0	0.0	0.0	0.0
162.5°	0.0	0.0	0.0	0.0	0.0
165°	0.0	0.0	0.0	0.0	0.0
167.5°	0.0	0.0	0.0	0.0	0.0
170°	0.0	0.0	0.0	0.0	0.0
172.5°	0.0	0.0	0.0	0.0	0.0
175°	0.0	0.0	0.0	0.0	0.0
177.5°	0.0	0.0	0.0	0.0	0.0
180°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)