

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: P644285

Luminaire Tested: CRQ4DIP-SR4F0-125D25U930-FLLFLL-1DUDD-WW

Issue Date: 2/20/2023



Test Information

Test Method: LM-79-2019
Report Number: P644285
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-SR4F0-125D25U930-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: 3000K CCT, 90 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

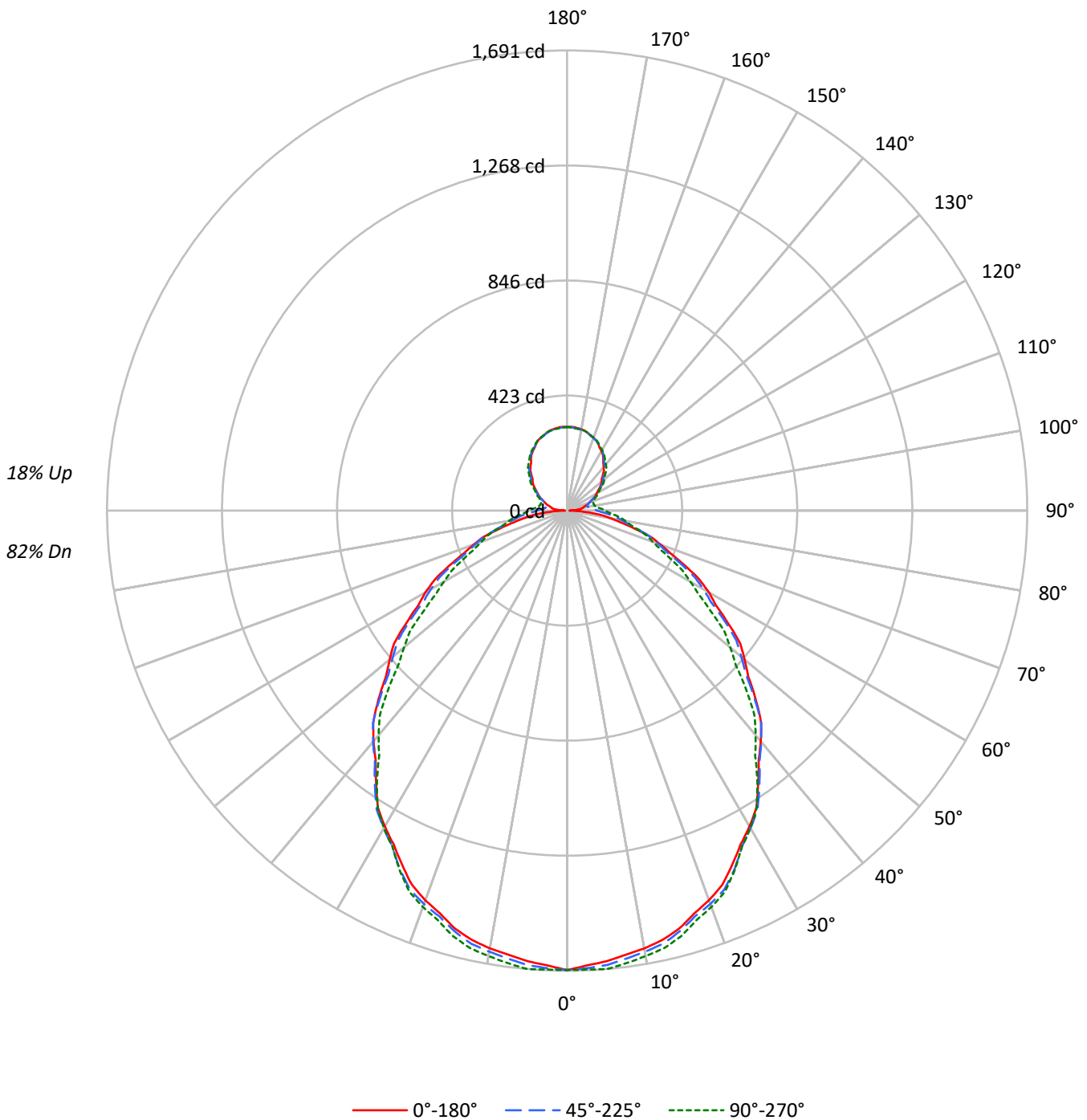
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 5259.0 lumens
Efficiency: N/A
Efficacy: 108.9 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					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	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°	27259	27259	27259
5°	26744	24068	23321
10°	26393	21418	20146
15°	26007	19180	17622
20°	25411	17207	15413
25°	24619	15361	13431
30°	23839	13581	11658
35°	22782	11949	10006
40°	21797	10455	8483
45°	20658	8986	7078
50°	19452	7617	5807
55°	18175	6407	4699
60°	16957	5259	3781
65°	15457	4213	3029
70°	14017	3331	2439
75°	12253	2609	1987
80°	10241	2018	1629
85°	7467	1579	1346

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	3.0
10°-20°	452.2	8.6
20°-30°	667.6	12.7
30°-40°	767.7	14.6
40°-50°	744.8	14.2
50°-60°	624.3	11.9
60°-70°	453.4	8.6
70°-80°	284.7	5.4
80°-90°	153.2	2.9
90°-100°	89.3	1.7
100°-110°	85.9	1.6
110°-120°	107.9	2.1
120°-130°	134.4	2.6
130°-140°	149.6	2.8
140°-150°	147.5	2.8
150°-160°	124.8	2.4
160°-170°	83.1	1.6
170°-180°	29.1	0.6
0°-30°	1279.3	24.3
0°-40°	2047.0	38.9
0°-60°	3416.2	65.0
0°-90°	4307.5	81.9
90°-120°	283.1	5.4
90°-150°	714.6	13.6
90°-180°	952.0	18.1
0°-180°	5259.0	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	1460	1455	1448	1457	661
35°	1223	1243	1232	1219	1219	766
45°	980	990	973	944	930	755
55°	722	733	706	664	644	648
65°	477	481	459	429	419	474
75°	258	260	272	272	270	275
85°	79	103	152	170	173	83
90°	9	58	111	134	139	10
95°	38	43	86	111	115	35
105°	72	62	77	94	100	76
115°	106	102	108	114	116	105
125°	145	146	151	154	155	130
135°	186	190	194	198	201	144
145°	232	234	236	238	240	145
155°	270	272	271	271	273	124
165°	295	296	294	293	295	83
175°	308	309	305	304	304	29
180°	307	307	307	307	307	



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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	1682.9	1686.5	1688.3
5°	1662.1	1692.4	1676.4	1679.1	1690.7
7.5°	1646.8	1675.1	1661.0	1663.8	1677.4
10°	1633.5	1661.5	1645.7	1650.4	1662.1
12.5°	1616.3	1642.9	1630.2	1635.2	1646.8
15°	1590.6	1614.5	1600.4	1607.5	1619.2
17.5°	1552.4	1577.9	1563.2	1567.0	1578.6
20°	1523.8	1547.4	1538.4	1538.4	1550.0
22.5°	1489.5	1515.0	1507.9	1502.2	1515.7
25°	1435.6	1459.5	1454.6	1447.7	1457.0
27.5°	1382.1	1400.5	1391.6	1384.2	1391.2
30°	1340.2	1361.8	1348.0	1340.3	1347.3
32.5°	1294.4	1316.3	1302.2	1292.6	1295.8
35°	1223.3	1242.9	1231.5	1218.6	1218.6
37.5°	1156.1	1169.5	1160.7	1140.2	1135.1
40°	1106.5	1121.7	1109.2	1084.9	1077.9
42.5°	1055.0	1070.2	1056.0	1029.4	1018.7
45°	980.1	990.4	973.3	944.0	930.0
47.5°	902.8	913.8	890.4	858.1	841.3
50°	851.3	863.9	835.6	800.8	782.2
52.5°	801.7	810.9	783.8	743.9	727.4
55°	722.5	733.1	706.5	663.5	643.8
57.5°	648.6	658.8	627.7	588.2	572.6
60°	600.9	609.2	578.4	538.0	522.7
62.5°	547.5	556.0	527.4	493.6	478.7
65°	476.9	481.2	458.7	429.3	419.3
67.5°	410.6	412.5	395.1	375.5	368.1
70°	364.9	366.8	356.1	342.7	335.6
72.5°	322.9	323.2	319.8	312.4	307.2
75°	257.5	260.1	271.8	271.7	269.6
77.5°	200.3	200.0	229.3	236.2	236.5
80°	162.2	166.6	203.0	215.6	216.2
82.5°	127.8	137.0	182.2	197.5	198.1
85°	78.7	102.7	152.0	170.4	173.3
87.5°	36.2	74.0	126.7	148.0	151.7
90°	9.4	57.7	110.6	133.8	139.4
92.5°	21.5	50.1	99.5	122.5	128.9
95°	38.5	42.9	86.2	111.2	115.4
97.5°	51.7	43.5	80.0	101.7	106.3
100°	58.3	47.4	77.8	97.7	103.6
102.5°	63.7	52.0	76.4	95.8	100.3
105°	71.7	62.2	76.8	94.2	99.9
107.5°	81.0	72.1	82.2	96.6	100.3
110°	87.2	80.6	87.9	99.9	103.8



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	95.8	89.2	95.4	103.6	107.5
115°	106.3	102.1	107.7	114.0	115.5
117.5°	117.0	115.4	120.0	123.8	125.3
120°	125.0	124.8	127.5	131.0	132.3
122.5°	133.6	132.3	136.6	140.1	141.4
125°	145.4	146.2	150.6	153.8	155.1
127.5°	157.2	160.2	164.2	167.5	169.2
130°	165.7	169.9	173.1	176.6	178.5
132.5°	171.8	175.9	180.3	185.5	187.7
135°	185.7	189.9	193.5	198.5	200.7
137.5°	199.9	203.9	206.7	210.6	213.4
140°	209.5	213.0	215.0	218.7	221.2
142.5°	218.4	221.9	223.4	226.5	229.0
145°	231.6	234.5	235.9	237.6	240.1
147.5°	244.1	246.9	247.5	249.0	250.5
150°	252.2	254.7	254.8	255.5	257.1
152.5°	259.7	262.0	261.3	261.7	263.6
155°	270.4	272.0	270.7	271.1	272.7
157.5°	278.9	280.5	278.5	279.1	280.4
160°	284.1	285.7	283.5	283.8	285.1
162.5°	289.1	290.1	288.1	287.7	289.5
165°	295.2	296.5	294.2	293.3	295.2
167.5°	300.4	301.7	298.7	297.7	299.6
170°	303.0	304.3	301.0	299.8	301.7
172.5°	305.3	306.6	303.1	301.6	303.0
175°	307.6	308.8	305.0	303.7	303.7
177.5°	308.2	309.0	306.1	304.9	306.4
180°	306.9	306.9	306.9	306.9	306.9

(END OF REPORT)