

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: P644378

Luminaire Tested: CRQ4DIP-SR4F0-50D75U835-FLLOOB-1DUDD-WW

Issue Date: 2/20/2023



Test Information

Test Method: LM-79-2019
Report Number: P644378
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-SR4F0-50D75U835-FLLOOB-1DUDD-WW
Description: NEO-RAY CIRQUE SUSPENDED LED LUMINAIRE
DOWNLIGHT - CURVED FROSTED LENS - 500 LUMENS PER FOOT
UPLIGHT - BATWING OPTIC - 750 LUMENS PER FOOT
Light Source: 3500K CCT, 80 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

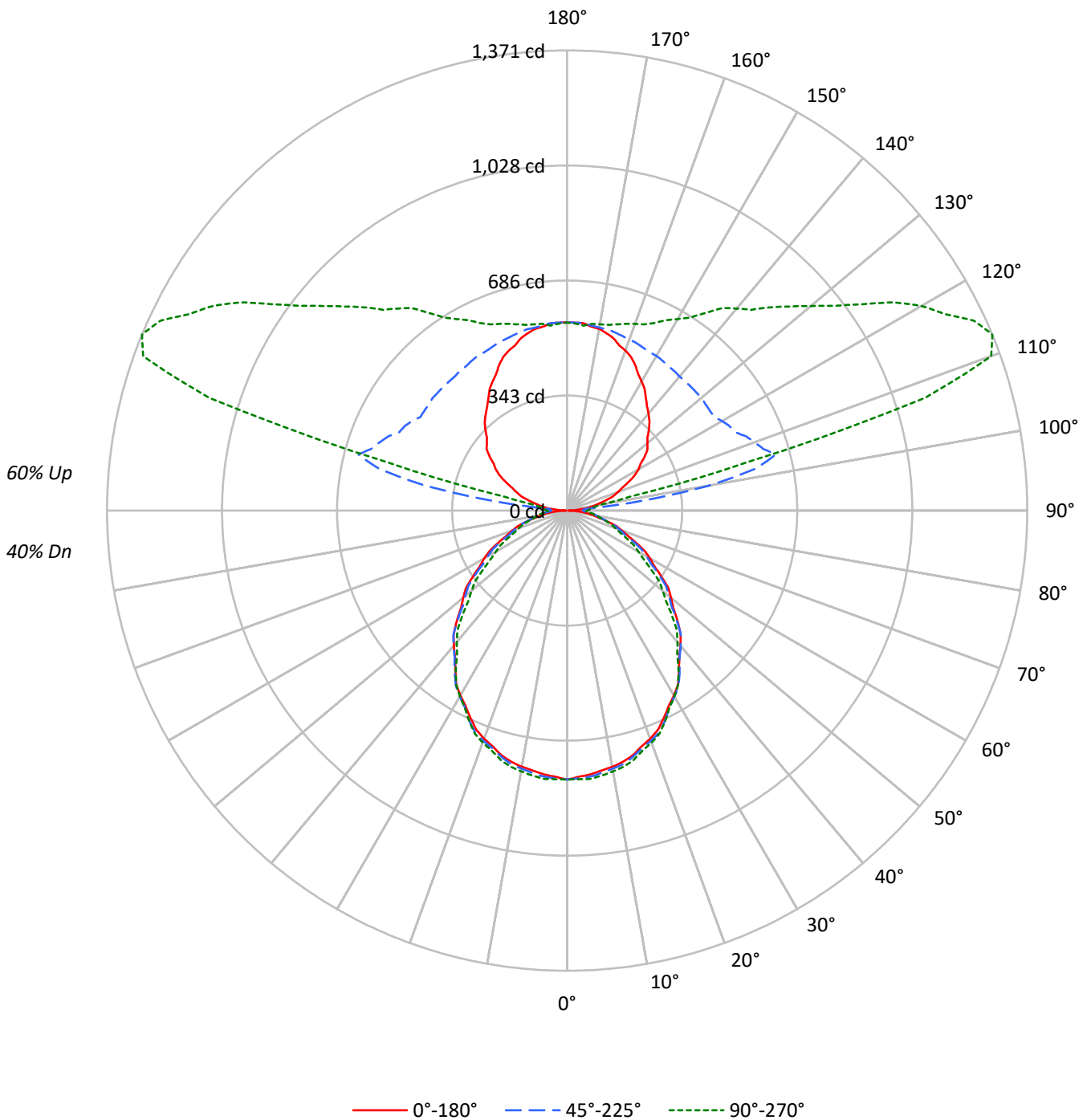
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 5076.5 lumens
Efficiency: N/A
Efficacy: 144.6 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-Indirect

Input Watts (W): 35.1
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	105	105	105	105	95	95	95	95	78	78	78	62	62	62	47	47	47	40																				
1	95	91	87	84	87	83	80	77	68	66	63	54	52	51	41	40	39	33																				
2	87	80	73	68	79	73	67	63	59	56	53	47	45	43	36	35	33	28																				
3	79	70	63	57	72	64	58	53	53	48	44	42	39	36	32	30	28	24																				
4	73	62	54	48	66	57	50	45	47	42	38	37	34	31	29	26	24	20																				
5	67	55	47	41	60	51	44	38	42	37	33	34	30	27	26	23	21	18																				
6	61	49	41	36	56	45	38	33	38	32	28	30	27	24	24	21	19	16																				
7	57	45	37	31	51	41	34	29	34	29	25	28	24	21	22	19	17	14																				
8	53	40	33	28	48	37	30	26	31	26	22	25	21	19	20	17	15	13																				
9	49	37	30	25	44	34	27	23	28	23	20	23	19	17	18	16	14	11																				
10	46	34	27	22	42	31	25	21	26	21	18	21	18	15	17	14	12	10																				

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	12936	12936	12936
5°	12692	11423	11067
10°	12525	10162	9561
15°	12341	9100	8363
20°	12059	8164	7315
25°	11683	7290	6373
30°	11313	6442	5532
35°	10811	5665	4749
40°	10344	4960	4025
45°	9803	4263	3359
50°	9231	3611	2756
55°	8626	3038	2222
60°	8048	2490	1777
65°	7335	1985	1406
70°	6649	1556	1111
75°	5815	1195	876
80°	4862	889	682
85°	3539	646	519

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 9803 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	75.6	1.5
10°-20°	214.6	4.2
20°-30°	316.8	6.2
30°-40°	364.2	7.2
40°-50°	353.3	7.0
50°-60°	295.8	5.8
60°-70°	213.1	4.2
70°-80°	130.2	2.6
80°-90°	64.5	1.3
90°-100°	93.9	1.9
100°-110°	500.0	9.8
110°-120°	669.6	13.2
120°-130°	543.7	10.7
130°-140°	436.4	8.6
140°-150°	343.9	6.8
150°-160°	251.5	5.0
160°-170°	156.2	3.1
170°-180°	53.3	1.0
0°-30°	607.0	12.0
0°-40°	971.2	19.1
0°-60°	1620.3	31.9
0°-90°	2028.1	40.0
90°-120°	1263.5	24.9
90°-150°	2587.5	51.0
90°-180°	3048.0	60.0
0°-180°	5076.5	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	801	801	801	801	801	
5°	789	803	796	797	802	75
15°	755	766	759	763	768	212
25°	681	692	690	687	691	314
35°	580	589	584	578	578	364
45°	465	470	462	448	441	358
55°	343	347	335	314	304	307
65°	226	227	216	200	195	225
75°	122	122	124	121	119	131
85°	37	45	62	67	67	39
90°	3	26	48	58	59	5
95°	40	62	52	64	72	41
105°	121	172	644	825	552	127
115°	202	239	552	1145	1338	200
125°	283	319	519	906	1071	251
135°	345	383	522	746	856	266
145°	409	443	525	650	719	257
155°	479	496	536	589	617	220
165°	532	539	550	564	574	149
175°	560	564	560	557	553	53
180°	560	560	560	560	560	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	801.2	801.2	801.2	801.2	801.2
2.5°	794.0	805.5	798.5	800.3	801.2
5°	788.8	803.2	795.6	796.8	802.3
7.5°	781.5	794.8	788.1	789.6	796.0
10°	775.2	788.5	780.8	783.2	788.8
12.5°	767.0	779.4	773.6	776.0	781.5
15°	754.8	765.9	759.3	762.9	768.4
17.5°	736.7	748.7	741.7	743.6	749.2
20°	723.1	734.2	729.9	730.0	735.6
22.5°	706.8	718.8	715.4	712.9	719.3
25°	681.3	692.3	690.3	687.0	691.4
27.5°	655.9	664.1	660.2	656.9	660.2
30°	636.0	646.0	639.4	636.1	639.4
32.5°	614.3	624.2	617.7	613.4	614.9
35°	580.5	589.4	583.9	578.3	578.3
37.5°	548.6	554.4	550.7	541.1	538.7
40°	525.1	531.7	526.2	514.8	511.5
42.5°	500.6	507.3	500.9	488.5	483.4
45°	465.1	469.5	461.7	448.0	441.3
47.5°	428.4	433.1	422.3	407.2	399.3
50°	404.0	409.5	396.1	380.0	371.2
52.5°	380.5	384.2	371.6	352.9	344.9
55°	342.9	347.3	335.0	314.4	304.4
57.5°	307.8	312.0	297.4	277.8	270.0
60°	285.2	288.5	273.9	253.3	245.6
62.5°	259.8	263.1	249.4	231.6	223.8
65°	226.3	227.4	216.1	200.2	194.6
67.5°	194.9	194.9	185.4	173.5	169.1
70°	173.1	173.1	166.4	157.2	152.8
72.5°	153.2	152.3	148.2	141.8	138.3
75°	122.2	122.2	124.5	121.0	118.8
77.5°	95.1	93.3	103.0	102.5	101.4
80°	77.0	77.0	89.4	91.6	90.5
82.5°	60.7	62.4	78.5	81.7	80.6
85°	37.3	45.1	62.2	66.8	66.8
87.5°	17.0	31.2	50.3	56.9	57.1
90°	3.4	25.7	47.8	58.1	59.2
92.5°	15.5	28.9	49.0	62.2	67.0
95°	39.5	62.5	52.0	63.6	71.6
97.5°	63.6	107.1	224.4	84.9	78.0
100°	80.5	131.4	429.4	141.7	102.5
102.5°	96.5	150.1	572.4	338.6	193.9
105°	120.6	172.5	643.5	825.0	551.6
107.5°	144.6	182.3	612.1	1192.2	1118.2
110°	160.6	196.4	594.3	1250.6	1344.7

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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	177.5	213.3	577.3	1213.5	1371.1
115°	201.7	238.6	552.0	1144.8	1337.8
117.5°	226.4	264.0	545.4	1069.6	1268.0
120°	245.3	281.0	533.2	1012.5	1219.2
122.5°	259.4	296.9	519.1	964.2	1154.4
125°	282.9	318.6	519.1	905.8	1071.2
127.5°	302.0	339.7	519.8	838.1	1001.5
130°	312.4	353.7	522.6	792.8	947.9
132.5°	324.6	366.0	521.7	772.5	900.0
135°	345.3	383.2	521.5	746.0	856.3
137.5°	362.9	403.6	521.5	716.8	811.2
140°	377.0	414.9	521.5	699.7	785.8
142.5°	391.1	426.3	524.3	679.8	760.4
145°	408.8	443.2	525.0	649.9	718.8
147.5°	429.9	460.2	529.3	628.4	681.5
150°	444.0	471.6	532.1	614.2	658.9
152.5°	458.1	482.9	532.1	602.7	639.2
155°	479.2	496.5	535.6	589.1	616.7
157.5°	496.1	512.7	539.8	580.5	600.4
160°	507.4	521.2	542.7	574.8	592.0
162.5°	515.9	529.7	545.5	571.8	583.5
165°	532.1	539.0	549.7	564.0	574.4
167.5°	541.2	547.5	553.2	560.4	566.6
170°	549.7	553.2	553.2	560.4	563.8
172.5°	552.5	558.7	556.0	557.5	561.0
175°	560.3	563.7	560.3	556.7	553.2
177.5°	560.3	563.0	560.3	560.2	557.5
180°	560.3	560.3	560.3	560.3	560.3

(END OF REPORT)