

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: P644353

Luminaire Tested: CRQ4DIP-SR4F0-50D25U835-FLLFLL-1DUDD-WW

Issue Date: 2/20/2023



Test Information

Test Method: LM-79-2019
Report Number: P644353
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-SR4F0-50D25U835-FLLFLL-1DUDD-WW
Description: NEO-RAY CIRQUE SUSPENDED LED LUMINAIRE
DOWNLIGHT - CURVED FROSTED LENS - 500 LUMENS PER FOOT
UPLIGHT - CURVED FROSTED LENS - 250 LUMENS PER FOOT
Light Source: 3500K CCT, 80 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

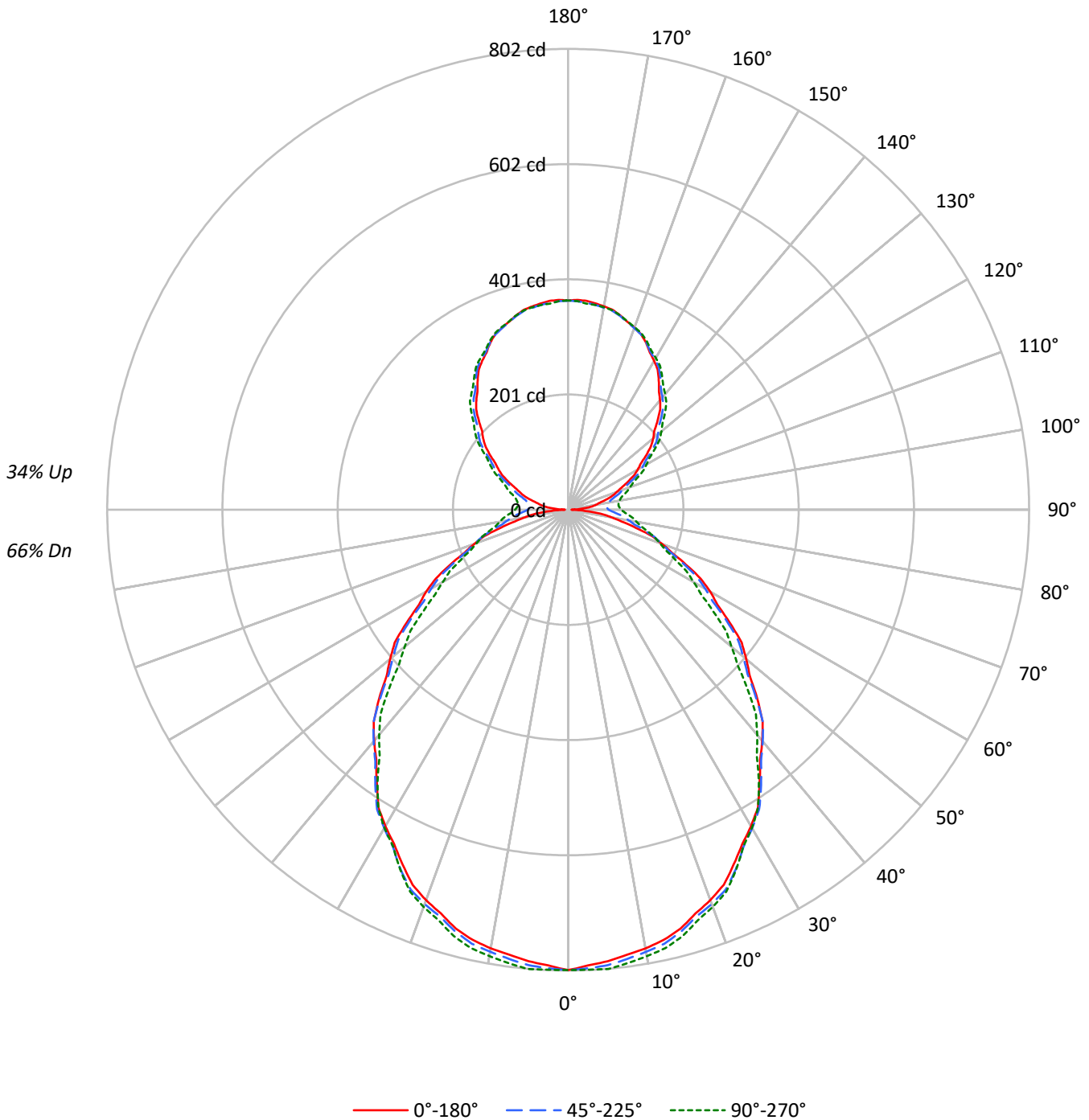
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 3140.6 lumens
Efficiency: N/A
Efficacy: 139.0 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): 22.6
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	50	30	10	0	
RCR																						
0	111	111	111	111	104	104	104	104	92	92	92	81	81	81	71	71	71	66				
1	101	96	92	88	95	91	87	83	80	77	75	70	68	66	62	60	59	54				
2	92	84	77	72	86	79	73	68	70	66	62	62	58	55	54	52	49	45				
3	84	74	66	60	78	70	63	57	62	57	52	55	51	47	48	45	42	39				
4	77	66	57	51	72	62	55	49	55	49	45	49	44	40	43	39	36	33				
5	71	59	50	44	66	55	48	42	50	43	39	44	39	35	39	35	32	29				
6	65	53	44	38	61	50	42	37	45	38	34	40	35	31	35	31	28	25				
7	60	48	39	34	57	45	38	32	41	34	30	36	31	27	32	28	25	23				
8	56	43	35	30	53	41	34	29	37	31	27	33	28	25	30	26	23	20				
9	52	40	32	27	49	38	31	26	34	28	24	31	26	22	28	23	20	18				
10	49	37	29	24	46	35	28	23	32	26	22	29	24	20	26	22	19	17				

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	12936	12936	12936
5°	12692	11423	11067
10°	12525	10167	9561
15°	12341	9105	8363
20°	12059	8168	7315
25°	11683	7290	6373
30°	11313	6450	5532
35°	10811	5677	4749
40°	10344	4964	4025
45°	9803	4266	3359
50°	9231	3621	2756
55°	8626	3045	2242
60°	8048	2504	1821
65°	7335	2021	1484
70°	6649	1617	1228
75°	5815	1303	1044
80°	4862	1062	909
85°	3539	904	818

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	2.4
10°-20°	214.6	6.8
20°-30°	316.9	10.1
30°-40°	364.5	11.6
40°-50°	353.7	11.3
50°-60°	297.1	9.5
60°-70°	218.2	6.9
70°-80°	142.5	4.5
80°-90°	86.9	2.8
90°-100°	68.4	2.2
100°-110°	88.3	2.8
110°-120°	123.2	3.9
120°-130°	157.4	5.0
130°-140°	177.2	5.6
140°-150°	175.0	5.6
150°-160°	148.0	4.7
160°-170°	98.5	3.1
170°-180°	34.5	1.1
0°-30°	607.2	19.3
0°-40°	971.7	30.9
0°-60°	1622.5	51.7
0°-90°	2070.1	65.9
90°-120°	279.9	8.9
90°-150°	789.5	25.1
90°-180°	1070.0	34.1
0°-180°	3140.6	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	767	760	763	768	212
25°	681	693	690	687	691	314
35°	580	590	585	578	578	364
45°	465	471	462	448	441	358
55°	343	349	336	316	307	307
65°	226	230	220	209	206	225
75°	122	125	136	141	142	131
85°	37	54	87	102	105	40
90°	6	35	70	87	92	6
95°	29	36	67	84	88	28
105°	68	67	83	96	100	73
115°	114	116	124	132	134	113
125°	166	170	177	182	184	148
135°	220	225	230	235	238	170
145°	275	278	280	282	285	172
155°	321	323	321	322	323	147
165°	350	352	349	348	350	99
175°	365	366	362	360	360	35
180°	364	364	364	364	364	



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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	798.8	800.3	801.2
5°	788.8	803.2	795.6	796.8	802.3
7.5°	781.5	795.1	788.5	789.6	796.0
10°	775.2	788.5	781.2	783.2	788.8
12.5°	767.0	780.0	773.7	776.0	781.5
15°	754.8	766.6	759.7	762.9	768.4
17.5°	736.7	749.0	742.1	743.6	749.2
20°	723.1	734.6	730.3	730.0	735.6
22.5°	706.8	719.2	715.8	712.9	719.3
25°	681.3	693.1	690.3	687.0	691.4
27.5°	655.9	665.5	660.7	656.9	660.2
30°	636.0	646.7	640.2	636.1	639.4
32.5°	614.3	625.3	618.4	613.4	614.9
35°	580.5	590.5	585.1	578.3	578.3
37.5°	548.6	555.9	551.1	541.1	538.7
40°	525.1	533.2	526.6	514.8	511.5
42.5°	500.6	508.8	501.6	488.5	483.4
45°	465.1	470.7	462.1	448.0	441.3
47.5°	428.4	434.5	422.9	407.2	399.3
50°	404.0	410.7	397.2	380.0	371.2
52.5°	380.5	385.7	372.5	353.2	345.5
55°	342.9	348.8	335.7	315.6	307.1
57.5°	307.8	313.5	298.6	281.3	274.3
60°	285.2	290.0	275.4	258.4	251.8
62.5°	259.8	265.0	251.6	238.2	232.2
65°	226.3	229.7	220.0	209.1	205.5
67.5°	194.9	197.1	190.7	185.2	183.1
70°	173.1	175.4	172.9	170.8	169.0
72.5°	153.2	154.9	157.0	157.9	157.0
75°	122.2	125.2	135.7	140.8	141.6
77.5°	95.1	97.4	117.6	126.5	128.4
80°	77.0	82.2	106.8	118.4	120.7
82.5°	60.7	68.9	98.4	111.8	114.1
85°	37.3	54.2	87.0	102.0	105.4
87.5°	17.5	42.1	77.0	93.4	97.4
90°	6.1	35.1	70.1	87.4	92.3
92.5°	15.0	33.9	67.8	84.8	89.4
95°	28.7	35.5	66.7	84.3	87.7
97.5°	41.0	41.5	69.1	85.0	88.4
100°	48.7	47.4	71.9	86.9	90.7
102.5°	56.5	54.3	75.7	90.1	93.6
105°	68.1	66.8	82.6	96.4	99.8
107.5°	81.1	80.2	92.7	105.1	107.8
110°	89.8	90.3	100.8	111.6	114.6



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	100.0	100.5	109.8	118.8	121.8
115°	114.2	115.8	124.4	131.8	133.6
117.5°	128.9	131.7	139.3	145.5	147.3
120°	139.7	142.8	149.5	155.4	156.9
122.5°	149.9	153.0	160.3	166.2	167.7
125°	165.7	169.9	176.9	182.4	183.9
127.5°	181.7	186.6	193.1	198.7	200.6
130°	193.1	198.1	203.6	209.5	211.7
132.5°	203.1	208.0	213.5	220.0	222.6
135°	220.2	225.2	229.5	235.4	238.0
137.5°	237.0	241.8	245.1	249.8	253.1
140°	248.5	252.6	255.0	259.3	262.4
142.5°	259.0	263.1	264.9	268.6	271.6
145°	274.7	278.1	279.8	281.8	284.8
147.5°	289.5	292.8	293.5	295.3	297.1
150°	299.1	302.1	302.2	303.0	304.9
152.5°	308.0	310.8	309.9	310.4	312.6
155°	320.7	322.6	321.1	321.5	323.4
157.5°	330.8	332.6	330.3	331.0	332.5
160°	336.9	338.8	336.2	336.6	338.1
162.5°	342.8	344.1	341.7	341.2	343.4
165°	350.1	351.6	348.9	347.8	350.1
167.5°	356.3	357.8	354.3	353.1	355.3
170°	359.4	360.9	357.0	355.5	357.8
172.5°	362.1	363.6	359.5	357.7	359.4
175°	364.8	366.3	361.7	360.1	360.1
177.5°	365.5	366.4	363.1	361.6	363.4
180°	364.0	364.0	364.0	364.0	364.0

(END OF REPORT)