

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: P644357

Luminaire Tested: CRQ4DIP-SR4F0-50D25U930-FLLFLL-1DUDD-WW

Issue Date: 2/20/2023



Test Information

Test Method: LM-79-2019
Report Number: P644357
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-SR4F0-50D25U930-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: 3000K CCT, 90 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

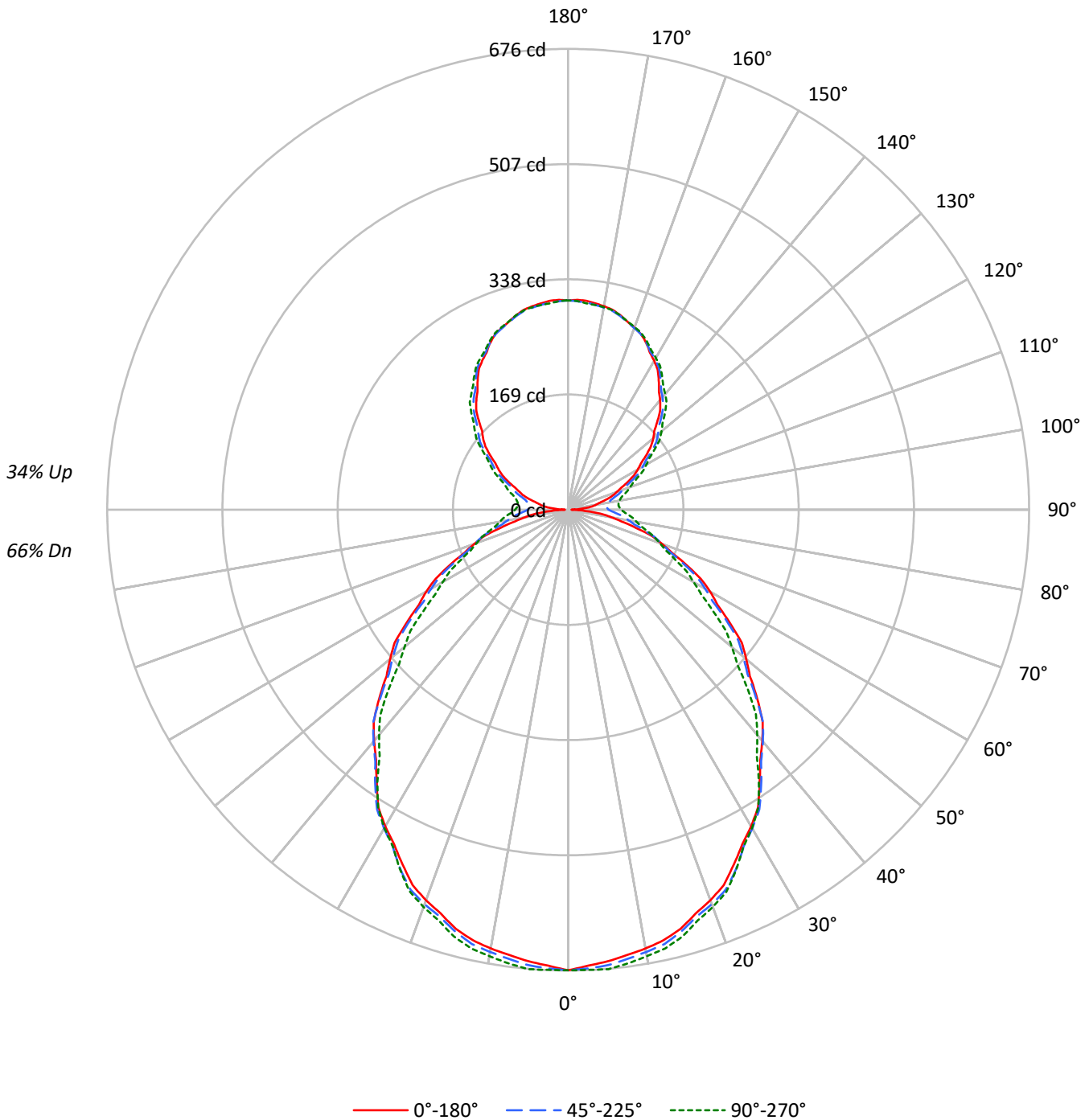
Lumens per Lamp: N/A
Luminaire Lumens: 2648.1 lumens
Efficiency: N/A
Efficacy: 117.2 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 1.19 / 1.3
Luminous Opening: Rectangular w/ Sides (W: 0.17' x L: 4' x H: 0.33')
CIE Type: Semi-Direct

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										
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	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°	10908	10908	10908
5°	10702	9631	9332
10°	10561	8573	8061
15°	10407	7677	7051
20°	10168	6888	6167
25°	9850	6147	5374
30°	9540	5438	4665
35°	9116	4786	4004
40°	8723	4185	3394
45°	8266	3597	2832
50°	7785	3053	2324
55°	7272	2567	1891
60°	6787	2111	1536
65°	6184	1704	1251
70°	5608	1364	1036
75°	4906	1098	880
80°	4098	895	766
85°	2989	761	690

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 8266 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	63.8	2.4
10°-20°	181.0	6.8
20°-30°	267.2	10.1
30°-40°	307.4	11.6
40°-50°	298.2	11.3
50°-60°	250.5	9.5
60°-70°	184.0	6.9
70°-80°	120.2	4.5
80°-90°	73.3	2.8
90°-100°	57.6	2.2
100°-110°	74.5	2.8
110°-120°	103.9	3.9
120°-130°	132.7	5.0
130°-140°	149.4	5.6
140°-150°	147.5	5.6
150°-160°	124.8	4.7
160°-170°	83.1	3.1
170°-180°	29.1	1.1
0°-30°	512.0	19.3
0°-40°	819.4	30.9
0°-60°	1368.1	51.7
0°-90°	1745.5	65.9
90°-120°	236.0	8.9
90°-150°	665.7	25.1
90°-180°	903.0	34.1
0°-180°	2648.1	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	676	676	676	676	676	
5°	665	677	671	672	676	63
15°	636	646	641	643	648	179
25°	574	584	582	579	583	265
35°	490	498	493	488	488	307
45°	392	397	390	378	372	302
55°	289	294	283	266	259	259
65°	191	194	186	176	173	190
75°	103	106	114	119	119	110
85°	32	46	73	86	89	33
90°	5	30	59	74	78	5
95°	24	30	56	71	74	23
105°	57	56	70	81	84	61
115°	96	98	105	111	113	96
125°	140	143	149	154	155	125
135°	186	190	194	198	201	143
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°	675.6	675.6	675.6	675.6	675.6
2.5°	669.5	679.2	673.5	674.8	675.6
5°	665.1	677.2	670.8	671.9	676.5
7.5°	659.0	670.4	664.8	665.8	671.2
10°	653.6	664.8	658.7	660.4	665.1
12.5°	646.8	657.7	652.4	654.3	659.0
15°	636.5	646.4	640.6	643.2	647.9
17.5°	621.2	631.6	625.7	627.0	631.7
20°	609.7	619.4	615.8	615.6	620.2
22.5°	596.0	606.4	603.6	601.1	606.5
25°	574.4	584.4	582.1	579.3	583.0
27.5°	553.1	561.1	557.1	553.9	556.7
30°	536.3	545.3	539.8	536.3	539.1
32.5°	517.9	527.2	521.5	517.2	518.5
35°	489.5	497.9	493.3	487.6	487.6
37.5°	462.6	468.7	464.6	456.3	454.2
40°	442.8	449.6	444.0	434.1	431.3
42.5°	422.1	429.0	422.9	411.9	407.6
45°	392.2	396.9	389.6	377.7	372.1
47.5°	361.3	366.4	356.6	343.4	336.6
50°	340.7	346.3	334.9	320.4	313.0
52.5°	320.8	325.2	314.1	297.8	291.4
55°	289.1	294.1	283.1	266.1	259.0
57.5°	259.5	264.4	251.8	237.2	231.3
60°	240.5	244.5	232.2	217.9	212.3
62.5°	219.1	223.4	212.1	200.8	195.8
65°	190.8	193.7	185.5	176.3	173.2
67.5°	164.3	166.2	160.8	156.2	154.4
70°	146.0	147.9	145.8	144.0	142.5
72.5°	129.2	130.6	132.4	133.1	132.4
75°	103.1	105.6	114.4	118.7	119.4
77.5°	80.2	82.1	99.1	106.6	108.3
80°	64.9	69.3	90.0	99.8	101.7
82.5°	51.1	58.1	83.0	94.3	96.2
85°	31.5	45.7	73.3	86.0	88.9
87.5°	14.8	35.5	64.9	78.8	82.1
90°	5.1	29.6	59.1	73.7	77.8
92.5°	12.6	28.6	57.2	71.5	75.4
95°	24.2	30.0	56.2	71.1	73.9
97.5°	34.6	35.0	58.2	71.6	74.6
100°	41.1	40.0	60.6	73.3	76.4
102.5°	47.6	45.8	63.8	76.0	78.9
105°	57.4	56.3	69.6	81.3	84.1
107.5°	68.4	67.6	78.2	88.6	90.9
110°	75.7	76.2	85.0	94.1	96.6

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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	84.3	84.8	92.5	100.2	102.7
115°	96.3	97.6	104.9	111.1	112.7
117.5°	108.7	111.0	117.4	122.7	124.2
120°	117.8	120.4	126.1	131.0	132.3
122.5°	126.4	129.0	135.2	140.1	141.4
125°	139.7	143.2	149.2	153.8	155.1
127.5°	153.2	157.4	162.8	167.5	169.2
130°	162.9	167.0	171.7	176.6	178.5
132.5°	171.2	175.4	180.0	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)