

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: P644336

Luminaire Tested: CRQ4DIP-SR4F0-50D125U935-FLLOOB-1DUDD-WW

Issue Date: 2/20/2023



Test Information

Test Method: LM-79-2019
Report Number: P644336
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-SR4F0-50D125U935-FLLOOB-1DUDD-WW
Description: NEO-RAY CIRQUE SUSPENDED LED LUMINAIRE
DOWNLIGHT - CURVED FROSTED LENS - 500 LUMENS PER FOOT
UPLIGHT - BATWING OPTIC - 1250 LUMENS PER FOOT
Light Source: 3500K CCT, 90 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

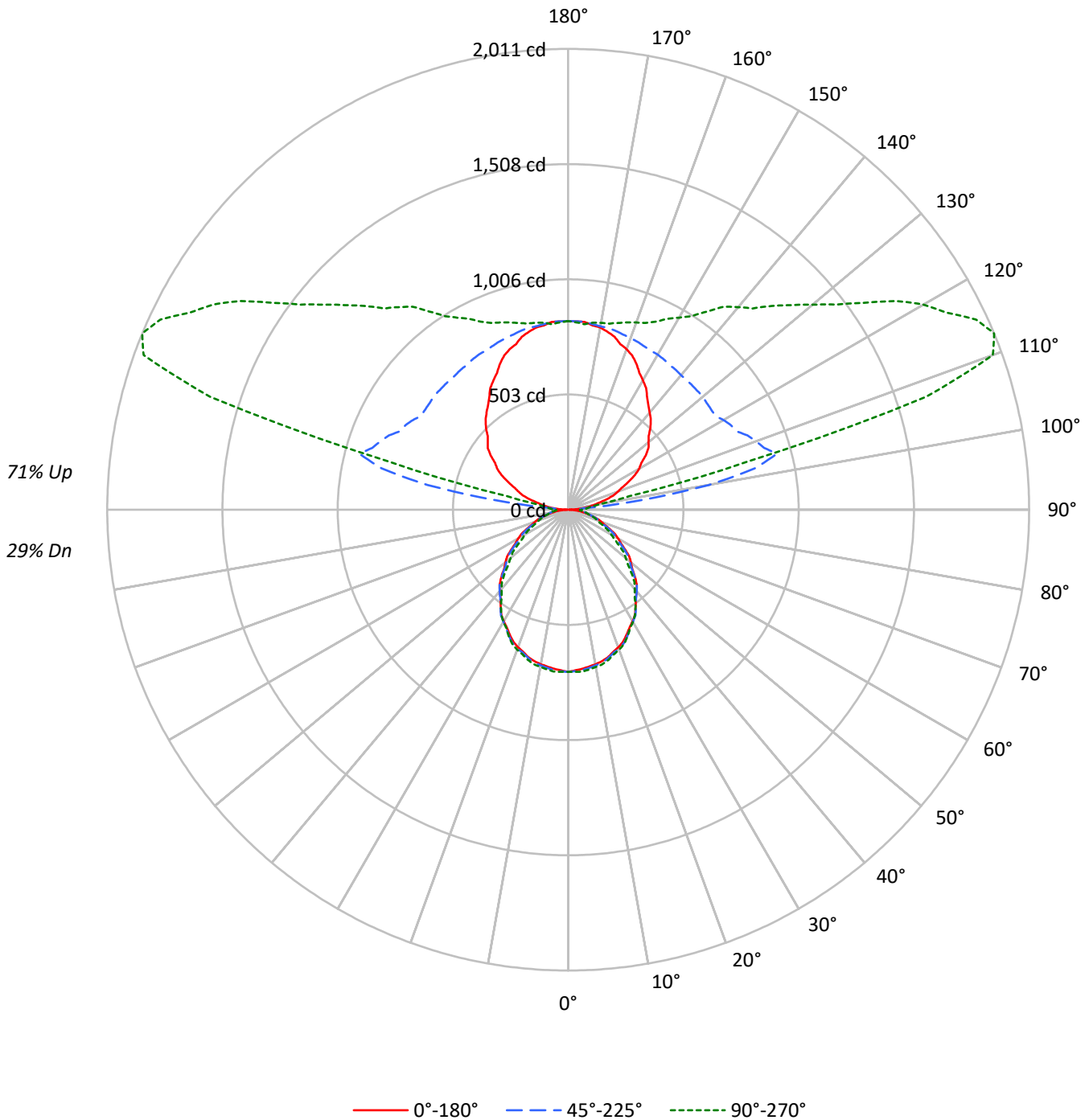
Lumens per Lamp: N/A
Luminaire Lumens: 6246.6 lumens
Efficiency: N/A
Efficacy: 119.0 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 1.19 / 1.3
Luminous Opening: Rectangular w/ Sides (W: 0.17' x L: 4' x H: 0.33')
CIE Type: Semi-Indirect

Input Watts (W): 52.5
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	102	102	102	102	91	91	91	91	72	72	72	53	53	53	37	37	37	29																				
1	93	89	85	81	83	80	76	73	62	60	58	47	45	44	32	31	31	24																				
2	85	77	71	66	75	69	64	60	55	51	48	41	39	37	28	27	26	20																				
3	77	68	61	55	69	61	55	50	48	44	41	36	33	31	25	23	22	17																				
4	71	60	53	47	63	54	48	43	43	38	34	32	29	27	22	21	19	15																				
5	65	53	46	40	58	48	41	36	38	33	30	29	26	23	20	18	17	13																				
6	59	48	40	34	53	43	36	32	34	29	26	26	23	20	18	16	15	11																				
7	55	43	35	30	49	39	32	28	31	26	23	24	20	18	17	15	13	10																				
8	51	39	32	26	45	35	29	24	28	23	20	22	18	16	15	13	12	9																				
9	47	35	28	23	42	32	26	21	26	21	18	20	16	14	14	12	10	8																				
10	44	32	25	21	39	29	23	19	24	19	16	18	15	13	13	11	9	7																				

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	11431	11431	11431
5°	11215	10093	9780
10°	11068	8980	8448
15°	10906	8042	7390
20°	10656	7214	6463
25°	10323	6442	5632
30°	9997	5692	4889
35°	9554	5006	4196
40°	9141	4383	3557
45°	8663	3767	2968
50°	8157	3190	2435
55°	7622	2684	1964
60°	7111	2200	1570
65°	6482	1754	1242
70°	5877	1375	981
75°	5139	1056	774
80°	4294	785	603
85°	3131	571	458

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 8663 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	66.8	1.1
10°-20°	189.6	3.0
20°-30°	279.9	4.5
30°-40°	321.8	5.2
40°-50°	312.2	5.0
50°-60°	261.3	4.2
60°-70°	188.3	3.0
70°-80°	115.0	1.8
80°-90°	57.7	0.9
90°-100°	123.3	2.0
100°-110°	728.8	11.7
110°-120°	981.4	15.7
120°-130°	797.6	12.8
130°-140°	640.7	10.3
140°-150°	505.0	8.1
150°-160°	369.3	5.9
160°-170°	229.4	3.7
170°-180°	78.2	1.3
0°-30°	536.4	8.6
0°-40°	858.2	13.7
0°-60°	1431.8	22.9
0°-90°	1792.9	28.7
90°-120°	1833.5	29.4
90°-150°	3776.9	60.5
90°-180°	4454.0	71.3
0°-180°	6246.6	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	708	708	708	708	708	
5°	697	710	703	704	709	66
15°	667	677	671	674	679	188
25°	602	612	610	607	611	277
35°	513	521	516	511	511	321
45°	411	415	408	396	390	317
55°	303	307	296	278	269	272
65°	200	201	191	177	172	199
75°	108	108	110	107	105	115
85°	33	40	55	59	59	35
90°	3	25	46	58	58	5
95°	51	86	62	75	86	55
105°	170	251	942	1206	803	180
115°	292	348	809	1680	1963	289
125°	413	466	762	1330	1573	367
135°	507	563	766	1096	1257	390
145°	600	651	771	954	1056	377
155°	704	729	786	865	906	323
165°	781	792	807	828	843	219
175°	823	828	823	817	812	78
180°	823	823	823	823	823	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	708.0	708.0	708.0	708.0	708.0
2.5°	701.6	711.8	705.6	707.2	708.0
5°	697.0	709.7	703.0	704.1	709.0
7.5°	690.6	702.3	696.4	697.7	703.4
10°	685.0	696.7	690.0	692.1	697.0
12.5°	677.8	688.7	683.6	685.7	690.6
15°	667.0	676.8	671.0	674.1	679.0
17.5°	651.0	661.6	655.4	657.1	662.0
20°	639.0	648.8	645.0	645.1	650.0
22.5°	624.6	635.2	632.2	629.9	635.6
25°	602.0	611.8	610.0	607.1	611.0
27.5°	579.6	586.8	583.4	580.5	583.4
30°	562.0	570.8	565.0	562.1	565.0
32.5°	542.8	551.6	545.8	542.0	543.4
35°	513.0	520.8	516.0	511.0	511.0
37.5°	484.8	489.9	486.6	478.2	476.0
40°	464.0	469.9	465.0	454.9	452.0
42.5°	442.4	448.3	442.6	431.7	427.2
45°	411.0	414.9	408.0	395.9	390.0
47.5°	378.6	382.7	373.2	359.8	352.8
50°	357.0	361.9	350.0	335.8	328.0
52.5°	336.2	339.5	328.4	311.8	304.8
55°	303.0	306.9	296.0	277.8	269.0
57.5°	272.0	275.7	262.8	245.4	238.6
60°	252.0	254.9	242.0	223.8	217.0
62.5°	229.6	232.5	220.4	204.6	197.8
65°	200.0	201.0	191.0	176.9	172.0
67.5°	172.2	172.2	163.8	153.3	149.4
70°	153.0	153.0	147.0	138.9	135.0
72.5°	135.4	134.6	131.0	125.3	122.2
75°	108.0	108.0	110.0	107.0	105.0
77.5°	84.0	82.4	91.0	90.6	89.6
80°	68.0	68.0	79.0	81.0	80.0
82.5°	53.6	55.2	69.4	72.2	71.2
85°	33.0	39.8	55.0	59.0	59.0
87.5°	15.0	27.9	45.3	51.5	51.7
90°	3.0	24.7	46.3	57.5	58.5
92.5°	18.6	32.5	52.4	67.8	73.6
95°	51.4	85.8	62.4	74.8	85.9
97.5°	85.5	153.3	319.5	110.8	99.8
100°	110.3	189.5	622.6	196.8	138.0
102.5°	134.4	217.6	834.6	488.1	274.8
105°	170.4	250.6	941.6	1205.5	802.7
107.5°	206.5	265.6	896.9	1746.9	1637.6
110°	230.5	286.3	871.3	1833.7	1971.3



TEST NUMBER: P644336

CATALOG NUMBER: CRQ4DIP-SR4F0-50D125U935-FLLOOB-1DUDD-WW

CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	255.3	311.2	846.5	1780.4	2011.1
115°	291.6	348.4	809.2	1679.8	1963.1
117.5°	328.7	385.6	799.7	1570.1	1861.5
120°	356.9	410.6	782.3	1486.8	1790.3
122.5°	377.6	434.5	761.6	1415.9	1695.1
125°	412.8	466.5	761.6	1330.2	1573.0
127.5°	441.6	497.5	762.7	1230.8	1470.6
130°	457.3	518.1	766.8	1164.2	1391.9
132.5°	476.4	537.2	766.0	1134.3	1321.5
135°	507.1	562.7	765.8	1095.5	1257.4
137.5°	533.0	592.7	765.8	1052.5	1191.1
140°	553.7	609.3	765.8	1027.4	1153.9
142.5°	574.4	626.0	770.0	998.2	1116.6
145°	600.2	650.8	771.0	954.4	1055.6
147.5°	631.3	675.8	777.2	922.8	1000.7
150°	652.0	692.5	781.3	901.8	967.6
152.5°	672.7	709.1	781.3	885.0	938.6
155°	703.7	729.0	786.5	865.0	905.5
157.5°	728.6	752.8	792.7	852.4	881.7
160°	745.1	765.4	796.9	844.0	869.3
162.5°	757.5	777.8	801.0	839.7	856.9
165°	781.3	791.5	807.2	828.3	843.4
167.5°	794.8	803.9	812.4	822.9	832.0
170°	807.2	812.3	812.4	822.8	827.9
172.5°	811.3	820.5	816.5	818.7	823.8
175°	822.7	827.8	822.7	817.4	812.4
177.5°	822.7	826.8	822.7	822.6	818.6
180°	822.7	822.7	822.7	822.7	822.7

(END OF REPORT)