

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: P644432

Luminaire Tested: CRQ4DIP-SR4F0-75D25U935-FLLOOB-1DUDD-WW

Issue Date: 2/20/2023



Test Information

Test Method: LM-79-2019
Report Number: P644432
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-SR4F0-75D25U935-FLLOOB-1DUDD-WW
Description: NEO-RAY CIRQUE SUSPENDED LED LUMINAIRE
DOWNLIGHT - CURVED FROSTED LENS - 750 LUMENS PER FOOT
UPLIGHT - BATWING OPTIC - 250 LUMENS PER FOOT
Light Source: 3500K CCT, 90 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

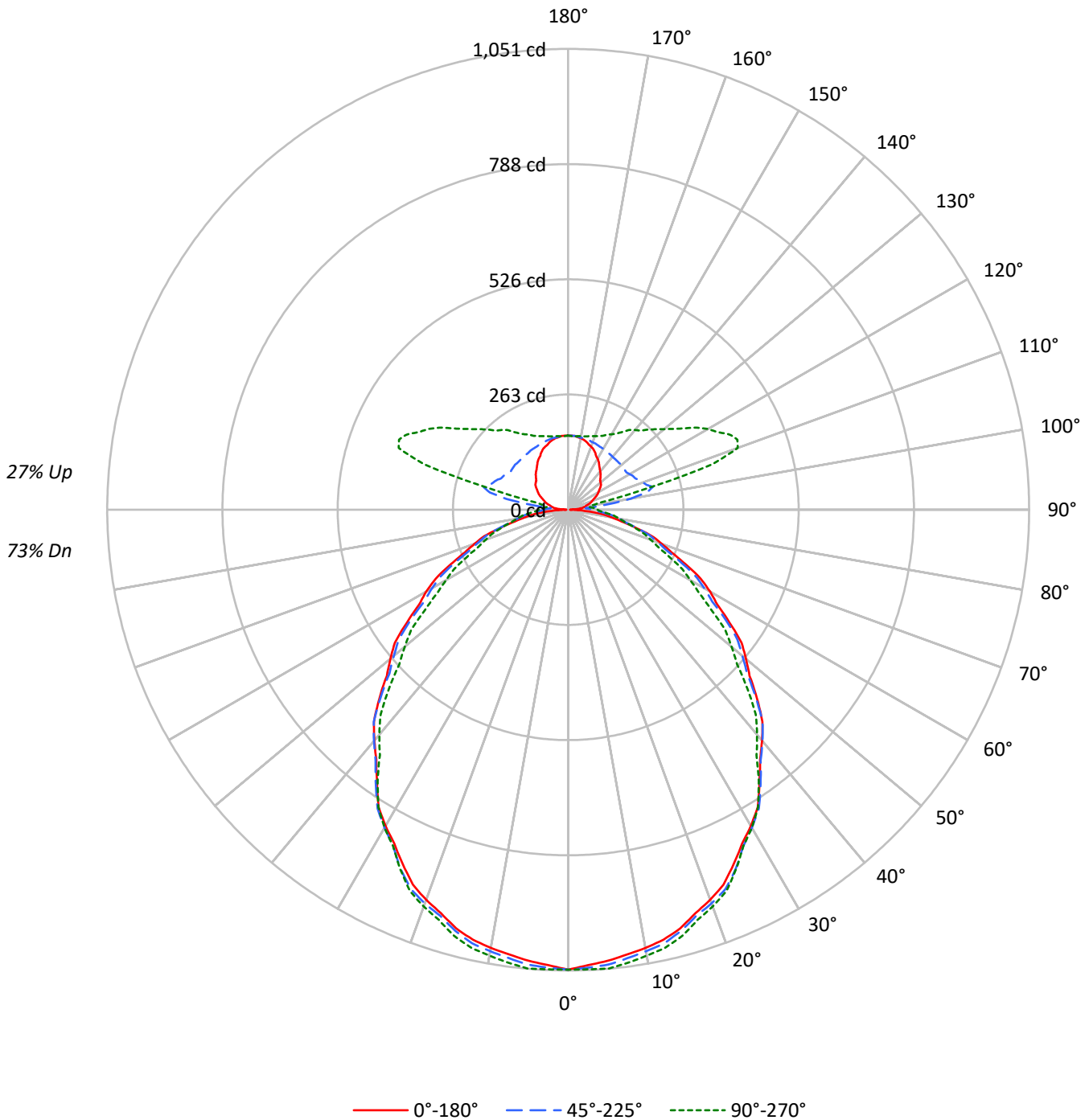
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 3613.0 lumens
Efficiency: N/A
Efficacy: 120.0 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): 30.1
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	0
RCR																		
0	113	113	113	113	107	107	107	107	96	96	96	87	87	87	78	78	78	73
1	103	98	94	90	97	93	90	86	84	81	79	76	74	72	68	67	65	61
2	94	86	79	74	89	82	76	71	74	69	65	67	63	60	60	57	55	51
3	86	76	68	62	81	72	65	60	65	60	55	59	55	51	53	50	47	44
4	78	67	59	53	74	64	57	51	58	52	47	53	48	44	48	44	41	38
5	72	60	52	45	68	57	50	44	52	46	41	48	42	38	43	39	36	33
6	67	54	46	40	63	52	44	38	47	41	36	43	38	34	39	35	31	29
7	62	49	41	35	59	47	39	34	43	37	32	39	34	30	36	32	28	26
8	58	45	37	31	55	43	35	30	39	33	29	36	31	27	33	29	25	23
9	54	41	33	28	51	39	32	27	36	30	26	33	28	24	31	26	23	21
10	50	38	30	25	48	36	29	25	34	28	23	31	26	22	29	24	21	19

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	16939	16939	16939
5°	16618	14956	14492
10°	16400	13306	12518
15°	16159	11916	10950
20°	15789	10689	9577
25°	15297	9546	8345
30°	14812	8435	7244
35°	14156	7418	6218
40°	13543	6494	5270
45°	12836	5582	4399
50°	12087	4727	3608
55°	11295	3978	2910
60°	10537	3260	2326
65°	9604	2600	1841
70°	8708	2037	1454
75°	7613	1565	1147
80°	6364	1164	893
85°	4640	846	679

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 12836 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	99.0	2.7
10°-20°	281.0	7.8
20°-30°	414.8	11.5
30°-40°	476.9	13.2
40°-50°	462.6	12.8
50°-60°	387.3	10.7
60°-70°	279.0	7.7
70°-80°	170.5	4.7
80°-90°	83.2	2.3
90°-100°	53.6	1.5
100°-110°	160.0	4.4
110°-120°	205.2	5.7
120°-130°	165.4	4.6
130°-140°	131.8	3.6
140°-150°	103.8	2.9
150°-160°	75.9	2.1
160°-170°	47.1	1.3
170°-180°	16.1	0.4
0°-30°	794.8	22.0
0°-40°	1271.7	35.2
0°-60°	2121.6	58.7
0°-90°	2654.2	73.5
90°-120°	418.7	11.6
90°-150°	819.7	22.7
90°-180°	959.0	26.5
0°-180°	3613.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1049	1049	1049	1049	1049	
5°	1033	1052	1042	1043	1051	98
15°	988	1003	994	999	1006	278
25°	892	906	904	900	905	411
35°	760	772	765	757	757	476
45°	609	615	605	587	578	469
55°	449	455	439	412	399	403
65°	296	298	283	262	255	295
75°	160	160	163	158	156	171
85°	49	59	82	87	87	52
90°	4	30	56	66	67	6
95°	23	29	40	51	55	22
105°	48	57	200	259	179	50
115°	69	76	169	348	406	68
125°	90	98	158	273	323	80
135°	104	116	157	225	258	81
145°	123	134	158	196	217	77
155°	145	150	162	178	186	66
165°	160	163	166	170	173	45
175°	169	170	169	168	167	16
180°	169	169	169	169	169	

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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1049.1	1049.1	1049.1	1049.1	1049.1
2.5°	1039.6	1054.7	1045.5	1047.9	1049.1
5°	1032.8	1051.6	1041.7	1043.3	1050.6
7.5°	1023.3	1040.7	1031.9	1033.9	1042.3
10°	1015.0	1032.4	1022.4	1025.5	1032.8
12.5°	1004.3	1020.6	1012.9	1016.0	1023.3
15°	988.3	1002.8	994.3	998.9	1006.1
17.5°	964.6	980.3	971.1	973.7	980.9
20°	946.8	961.3	955.7	955.9	963.1
22.5°	925.5	941.1	936.8	933.4	941.8
25°	892.0	906.5	903.9	899.6	905.3
27.5°	858.8	869.5	864.5	860.1	864.5
30°	832.7	845.8	837.2	832.8	837.2
32.5°	804.3	817.3	808.7	803.2	805.2
35°	760.1	771.7	764.6	757.2	757.2
37.5°	718.4	725.9	721.0	708.5	705.3
40°	687.5	696.2	689.0	674.1	669.7
42.5°	655.5	664.2	655.8	639.7	633.0
45°	609.0	614.8	604.6	586.6	577.9
47.5°	561.0	567.1	553.0	533.2	522.8
50°	529.0	536.2	518.6	497.6	486.0
52.5°	498.2	503.1	486.6	462.1	451.6
55°	449.0	454.8	438.6	411.6	398.6
57.5°	403.0	408.5	389.4	363.7	353.5
60°	373.4	377.7	358.6	331.7	321.5
62.5°	340.2	344.6	326.6	303.2	293.1
65°	296.3	297.8	283.0	262.1	254.9
67.5°	255.2	255.2	242.7	227.2	221.4
70°	226.7	226.7	217.8	205.8	200.0
72.5°	200.6	199.5	194.1	185.7	181.1
75°	160.0	160.0	163.0	158.5	155.6
77.5°	124.5	122.1	134.8	134.2	132.8
80°	100.8	100.8	117.1	120.0	118.5
82.5°	79.4	81.7	102.8	106.9	105.5
85°	48.9	59.0	81.5	87.4	87.4
87.5°	22.2	40.1	64.4	72.4	72.7
90°	4.4	30.1	55.5	65.5	66.9
92.5°	11.7	25.8	48.5	59.4	62.9
95°	23.3	29.2	39.6	51.1	54.7
97.5°	32.9	39.1	85.0	49.6	48.8
100°	38.0	45.5	143.2	62.2	52.6
102.5°	41.9	50.3	182.7	117.9	75.6
105°	47.8	56.8	199.8	259.2	179.0
107.5°	53.7	58.6	187.9	366.1	344.9
110°	57.6	62.8	181.6	381.9	411.4



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	62.7	67.9	176.5	368.9	417.6
115°	68.8	75.5	168.8	347.7	405.9
117.5°	74.9	83.1	166.6	323.6	383.5
120°	79.7	88.2	162.0	305.5	367.9
122.5°	84.0	92.2	157.8	290.9	348.3
125°	89.9	98.5	157.8	273.3	323.2
127.5°	94.3	104.8	158.0	252.9	302.2
130°	96.5	109.0	158.8	239.2	286.0
132.5°	98.4	110.9	157.6	233.1	271.5
135°	104.2	115.6	157.4	225.1	258.4
137.5°	109.5	121.8	157.4	216.3	244.7
140°	113.8	125.2	157.4	211.1	237.1
142.5°	118.0	128.6	158.2	205.1	229.4
145°	123.3	133.7	158.4	196.1	216.9
147.5°	129.7	138.9	159.7	189.6	205.6
150°	134.0	142.3	160.5	185.3	198.8
152.5°	138.2	145.7	160.5	181.8	192.9
155°	144.6	149.8	161.6	177.7	186.1
157.5°	149.7	154.7	162.9	175.1	181.2
160°	153.1	157.3	163.7	173.4	178.6
162.5°	155.7	159.8	164.6	172.5	176.1
165°	160.5	162.6	165.9	170.2	173.3
167.5°	163.3	165.2	166.9	169.1	171.0
170°	165.9	166.9	166.9	169.1	170.1
172.5°	166.7	168.6	167.8	168.2	169.3
175°	169.0	170.1	169.0	168.0	166.9
177.5°	169.0	169.9	169.0	169.0	168.2
180°	169.0	169.0	169.0	169.0	169.0

(END OF REPORT)