

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: P644481

Luminaire Tested: CRQ4DP-SR4F0-75D935-FLL-1DUDD-WW

Issue Date: 2/20/2023



Test Information

Test Method: LM-79-2019
Report Number: P644481
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2206-689-14)
Test Lab: INNOVATION CENTER
Issue Date: 2/20/2023
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: NEO-RAY
Catalog Number: CRQ4DP-SR4F0-75D935-FLL-1DUDD-WW
Description: NEO-RAY CIRQUE SUSPENDED LED LUMINAIRE
DOWNLIGHT - CURVED FROSTED LENS - 750 LUMENS PER FOOT
DIRECT ONLY
Light Source: 3500K CCT, 90 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

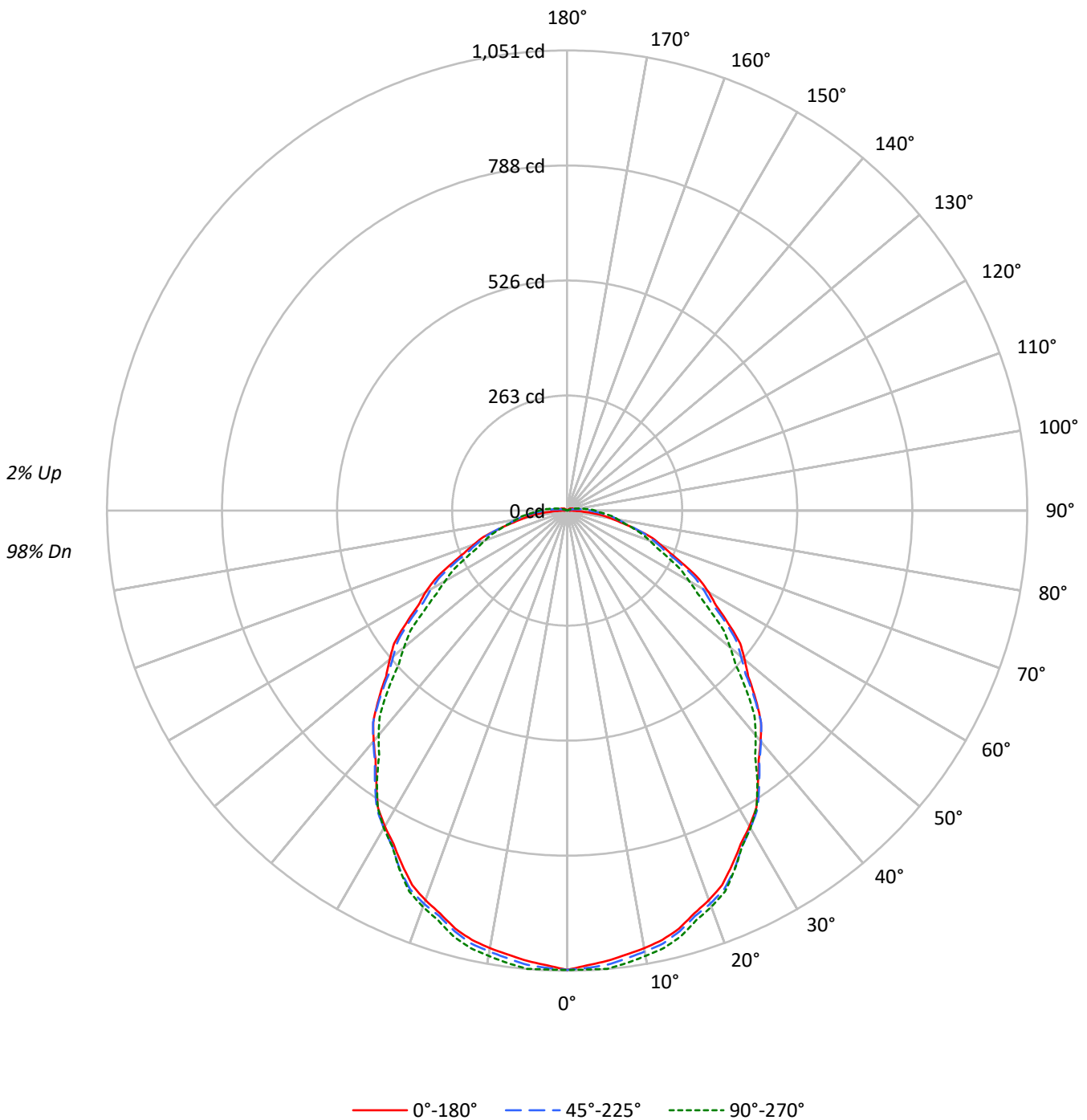
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 2704.6 lumens
Efficiency: N/A
Efficacy: 124.1 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: 0.02')
CIE Type: Direct

Input Watts (W): 21.8
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	119	119	119	119	116	116	116	116	110	110	110		105	105	105		100	100	100	98
1	108	103	99	95	105	101	97	93	96	93	90		92	89	87		88	86	84	82
2	99	91	84	78	96	88	82	77	85	79	75		81	77	73		78	74	71	69
3	90	80	72	65	88	78	71	65	75	69	63		72	67	62		69	65	61	58
4	83	71	62	56	80	70	62	55	67	60	54		64	58	53		62	57	53	50
5	76	64	55	48	74	63	54	48	60	53	47		58	52	47		56	50	46	44
6	71	58	49	43	69	57	48	42	55	47	42		53	46	41		51	45	41	39
7	66	52	44	38	64	51	43	38	50	42	37		48	42	37		47	41	36	34
8	61	48	40	34	60	47	39	34	46	38	33		44	38	33		43	37	33	31
9	57	44	36	31	56	43	36	30	42	35	30		41	35	30		40	34	30	28
10	54	41	33	28	52	40	33	28	39	32	27		38	32	27		37	31	27	25

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	16939	16939	16939
5°	16730	16722	16807
10°	16623	16442	16496
15°	16492	16142	16168
20°	16231	15786	15691
25°	15845	15314	15074
30°	15469	14672	14364
35°	14917	13988	13506
40°	14415	13290	12537
45°	13819	12432	11474
50°	13189	11511	10356
55°	12527	10664	9241
60°	11929	9720	8241
65°	11170	8741	7368
70°	10521	7887	6686
75°	9754	7200	6223
80°	9052	6694	5954
85°	8455	6672	5965

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 13819 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	99.0	3.7
10°-20°	281.0	10.4
20°-30°	414.8	15.3
30°-40°	476.9	17.6
40°-50°	462.6	17.1
50°-60°	387.3	14.3
60°-70°	279.0	10.3
70°-80°	170.5	6.3
80°-90°	82.8	3.1
90°-100°	32.8	1.2
100°-110°	11.9	0.4
110°-120°	4.2	0.2
120°-130°	1.7	0.1
130°-140°	0.2	0.0
140°-150°	0.0	0.0
150°-160°	0.0	0.0
160°-170°	0.0	0.0
170°-180°	0.0	0.0
0°-30°	794.8	29.4
0°-40°	1271.7	47.0
0°-60°	2121.6	78.4
0°-90°	2653.8	98.1
90°-120°	48.8	1.8
90°-150°	50.7	1.9
90°-180°	51.0	1.9
0°-180°	2704.6	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	29	53	62	64	6
95°	15	13	31	42	43	13
105°	15	6	7	13	16	16
115°	10	5	3	3	3	10
125°	6	3	2	0	0	5
135°	0	0	0	0	0	0
145°	0	0	0	0	0	0
155°	0	0	0	0	0	0
165°	0	0	0	0	0	0
175°	0	0	0	0	0	0
180°	0	0	0	0	0	0

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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	39.9	64.0	71.7	72.0
90°	4.4	29.1	53.3	62.3	63.7
92.5°	9.2	22.2	43.9	52.8	55.4
95°	14.8	13.4	31.1	41.5	43.0
97.5°	17.8	8.8	22.5	31.2	32.9
100°	17.8	7.6	17.8	25.3	28.2
102.5°	16.6	6.5	13.0	20.5	22.2
105°	14.8	6.1	7.4	13.4	16.3
107.5°	13.0	4.6	4.1	8.3	9.8
110°	11.9	4.6	3.0	6.0	7.4



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	11.9	4.6	3.0	3.6	5.0
115°	10.4	4.6	3.0	3.0	3.0
117.5°	8.6	4.5	2.7	1.2	1.2
120°	7.4	4.5	1.5	0.0	0.0
122.5°	7.4	3.4	1.5	0.0	0.0
125°	5.9	3.0	1.5	0.0	0.0
127.5°	4.1	3.0	1.5	0.0	0.0
130°	3.0	3.0	1.5	0.0	0.0
132.5°	0.6	0.6	0.3	0.0	0.0
135°	0.0	0.0	0.0	0.0	0.0
137.5°	0.0	0.0	0.0	0.0	0.0
140°	0.0	0.0	0.0	0.0	0.0
142.5°	0.0	0.0	0.0	0.0	0.0
145°	0.0	0.0	0.0	0.0	0.0
147.5°	0.0	0.0	0.0	0.0	0.0
150°	0.0	0.0	0.0	0.0	0.0
152.5°	0.0	0.0	0.0	0.0	0.0
155°	0.0	0.0	0.0	0.0	0.0
157.5°	0.0	0.0	0.0	0.0	0.0
160°	0.0	0.0	0.0	0.0	0.0
162.5°	0.0	0.0	0.0	0.0	0.0
165°	0.0	0.0	0.0	0.0	0.0
167.5°	0.0	0.0	0.0	0.0	0.0
170°	0.0	0.0	0.0	0.0	0.0
172.5°	0.0	0.0	0.0	0.0	0.0
175°	0.0	0.0	0.0	0.0	0.0
177.5°	0.0	0.0	0.0	0.0	0.0
180°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)