

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: P644429

Luminaire Tested: CRQ4DIP-SR4F0-75D25U930-FLLFLL-1DUDD-WW

Issue Date: 2/20/2023



Test Information

Test Method: LM-79-2019
Report Number: P644429
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-SR4F0-75D25U930-FLLFLL-1DUDD-WW
Description: NEO-RAY CIRQUE SUSPENDED LED LUMINAIRE
DOWNLIGHT - CURVED FROSTED LENS - 750 LUMENS PER FOOT
UPLIGHT - CURVED FROSTED LENS - 250 LUMENS PER FOOT
Light Source: 3000K CCT, 90 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

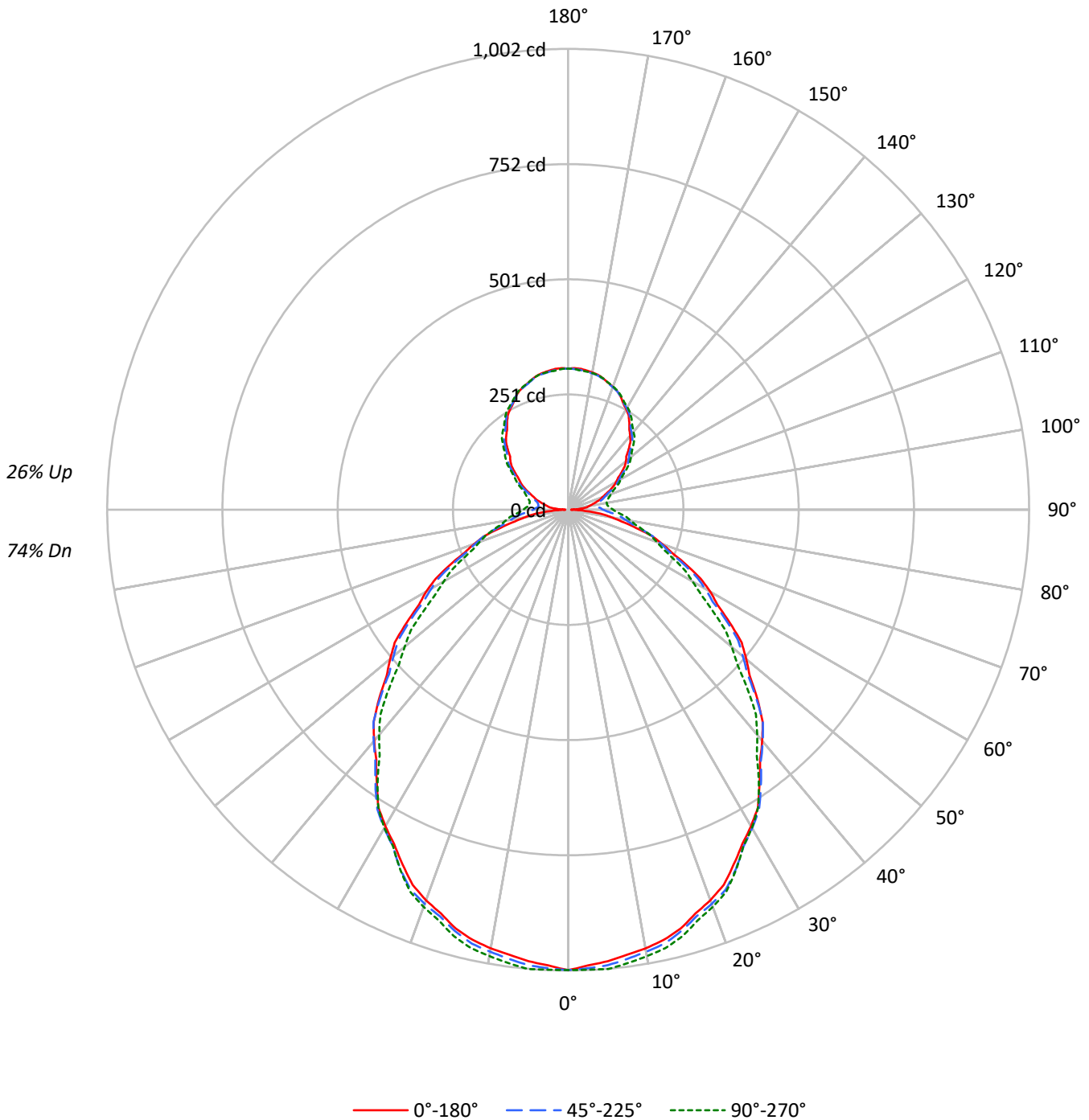
Lumens per Lamp: N/A
Luminaire Lumens: 3487.2 lumens
Efficiency: N/A
Efficacy: 115.9 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 1.19 / 1.3
Luminous Opening: Rectangular w/ Sides (W: 0.17' x L: 4' x H: 0.33')
CIE Type: Semi-Direct

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	74
1	103	98	94	90	97	93	89	86	84	81	78	76	73	71	68	66	65	61
2	93	85	79	73	88	81	76	71	74	69	65	66	63	60	60	57	55	51
3	85	75	68	61	81	72	65	59	65	59	55	59	54	51	53	50	47	43
4	78	67	59	52	74	64	56	50	58	52	47	53	48	44	48	44	40	37
5	72	60	51	45	68	57	49	44	52	46	41	47	42	38	43	39	35	33
6	66	54	45	39	63	52	44	38	47	41	36	43	38	33	39	35	31	29
7	62	49	41	35	58	47	39	34	43	36	32	39	34	30	36	31	28	25
8	57	45	36	31	54	43	35	30	39	33	28	36	31	27	33	28	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	24	33	27	23	31	26	22	28	24	21	19

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	16162	16162	16162
5°	15857	14271	13828
10°	15649	12701	11945
15°	15420	11374	10448
20°	15067	10204	9138
25°	14597	9108	7963
30°	14134	8055	6913
35°	13508	7088	5933
40°	12923	6200	5030
45°	12248	5329	4197
50°	11534	4519	3443
55°	10777	3802	2793
60°	10054	3123	2257
65°	9166	2510	1822
70°	8309	1996	1487
75°	7266	1584	1236
80°	6068	1256	1043
85°	4431	1024	901

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°

Vertical Angle: 45°

Luminance: 12248 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	94.5	2.7
10°-20°	268.2	7.7
20°-30°	395.9	11.4
30°-40°	455.3	13.1
40°-50°	441.7	12.7
50°-60°	370.6	10.6
60°-70°	270.6	7.8
70°-80°	173.1	5.0
80°-90°	99.0	2.8
90°-100°	67.8	1.9
100°-110°	78.2	2.2
110°-120°	105.2	3.0
120°-130°	133.3	3.8
130°-140°	149.5	4.3
140°-150°	147.5	4.2
150°-160°	124.8	3.6
160°-170°	83.1	2.4
170°-180°	29.1	0.8
0°-30°	758.6	21.8
0°-40°	1213.9	34.8
0°-60°	2026.2	58.1
0°-90°	2568.8	73.7
90°-120°	251.1	7.2
90°-150°	681.4	19.5
90°-180°	918.0	26.3
0°-180°	3487.2	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1001	1001	1001	1001	1001	
5°	986	1004	994	996	1002	94
15°	943	958	949	953	960	265
25°	851	866	862	858	864	392
35°	725	737	730	722	722	454
45°	581	588	577	560	551	448
55°	428	435	419	394	383	384
65°	283	286	273	258	252	281
75°	153	155	165	168	168	163
85°	47	64	99	113	116	49
90°	6	39	76	93	98	7
95°	29	34	66	84	87	27
105°	62	58	72	86	89	66
115°	100	99	106	112	114	99
125°	142	144	150	154	155	127
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°	1001.0	1001.0	1001.0	1001.0	1001.0
2.5°	992.0	1006.4	997.9	999.9	1001.0
5°	985.5	1003.5	994.0	995.5	1002.5
7.5°	976.4	993.3	985.0	986.5	994.5
10°	968.5	985.1	975.9	978.6	985.5
12.5°	958.3	974.3	966.6	969.5	976.4
15°	943.1	957.5	949.0	953.1	960.0
17.5°	920.4	935.7	927.0	929.1	936.0
20°	903.5	917.6	912.3	912.1	919.0
22.5°	883.1	898.4	894.2	890.7	898.7
25°	851.2	865.6	862.5	858.4	863.9
27.5°	819.5	830.9	825.3	820.7	824.9
30°	794.6	807.7	799.5	794.7	798.9
32.5°	767.5	780.8	772.4	766.4	768.3
35°	725.3	737.3	730.5	722.5	722.5
37.5°	685.5	693.9	688.3	676.1	673.0
40°	656.0	665.6	657.8	643.2	639.1
42.5°	625.5	635.1	626.4	610.4	604.0
45°	581.1	587.6	577.2	559.7	551.4
47.5°	535.3	542.3	528.1	508.8	498.8
50°	504.8	512.6	495.8	474.8	463.8
52.5°	475.4	481.3	465.0	441.2	431.5
55°	428.4	435.2	419.2	393.8	382.6
57.5°	384.6	391.1	372.6	350.0	341.0
60°	356.3	361.7	343.5	320.7	312.0
62.5°	324.6	330.3	313.4	294.9	286.7
65°	282.8	286.1	273.3	257.6	252.3
67.5°	243.5	245.4	236.1	226.7	223.1
70°	216.3	218.2	213.4	207.9	204.6
72.5°	191.4	192.5	192.6	190.7	188.5
75°	152.7	155.2	165.0	167.9	167.7
77.5°	118.8	120.0	141.0	148.3	149.5
80°	96.1	100.6	126.4	137.0	138.5
82.5°	75.8	83.5	114.9	127.5	128.9
85°	46.7	64.0	98.6	113.1	116.0
87.5°	21.7	47.9	84.8	101.0	104.5
90°	6.5	38.6	75.7	93.0	97.6
92.5°	15.5	35.5	70.8	87.9	92.6
95°	28.8	34.1	65.9	84.0	87.3
97.5°	40.1	37.7	65.2	81.3	84.8
100°	46.6	42.4	66.2	81.1	85.2
102.5°	52.8	47.8	67.9	82.3	85.8
105°	62.0	58.2	71.9	85.5	89.2
107.5°	72.5	69.0	79.5	91.2	93.9
110°	79.4	77.6	85.9	96.0	98.9



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	88.0	86.2	93.5	101.3	104.2
115°	99.5	99.1	105.8	112.0	113.6
117.5°	111.4	112.5	118.3	123.0	124.5
120°	120.1	121.8	126.5	131.0	132.3
122.5°	128.7	130.1	135.6	140.1	141.4
125°	141.5	144.2	149.7	153.8	155.1
127.5°	154.5	158.3	163.3	167.5	169.2
130°	163.8	167.9	172.1	176.6	178.5
132.5°	171.4	175.6	180.1	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)