

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: P644377

Luminaire Tested: CRQ4DIP-SR4F0-50D75U835-FLLFLL-1DUDD-WW

Issue Date: 2/20/2023



Test Information

Test Method: LM-79-2019
Report Number: P644377
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-SR4F0-50D75U835-FLLFLL-1DUDD-WW
Description: NEO-RAY CIRQUE SUSPENDED LED LUMINAIRE
DOWNLIGHT - CURVED FROSTED LENS - 500 LUMENS PER FOOT
UPLIGHT - CURVED FROSTED LENS - 750 LUMENS PER FOOT
Light Source: 3500K CCT, 80 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

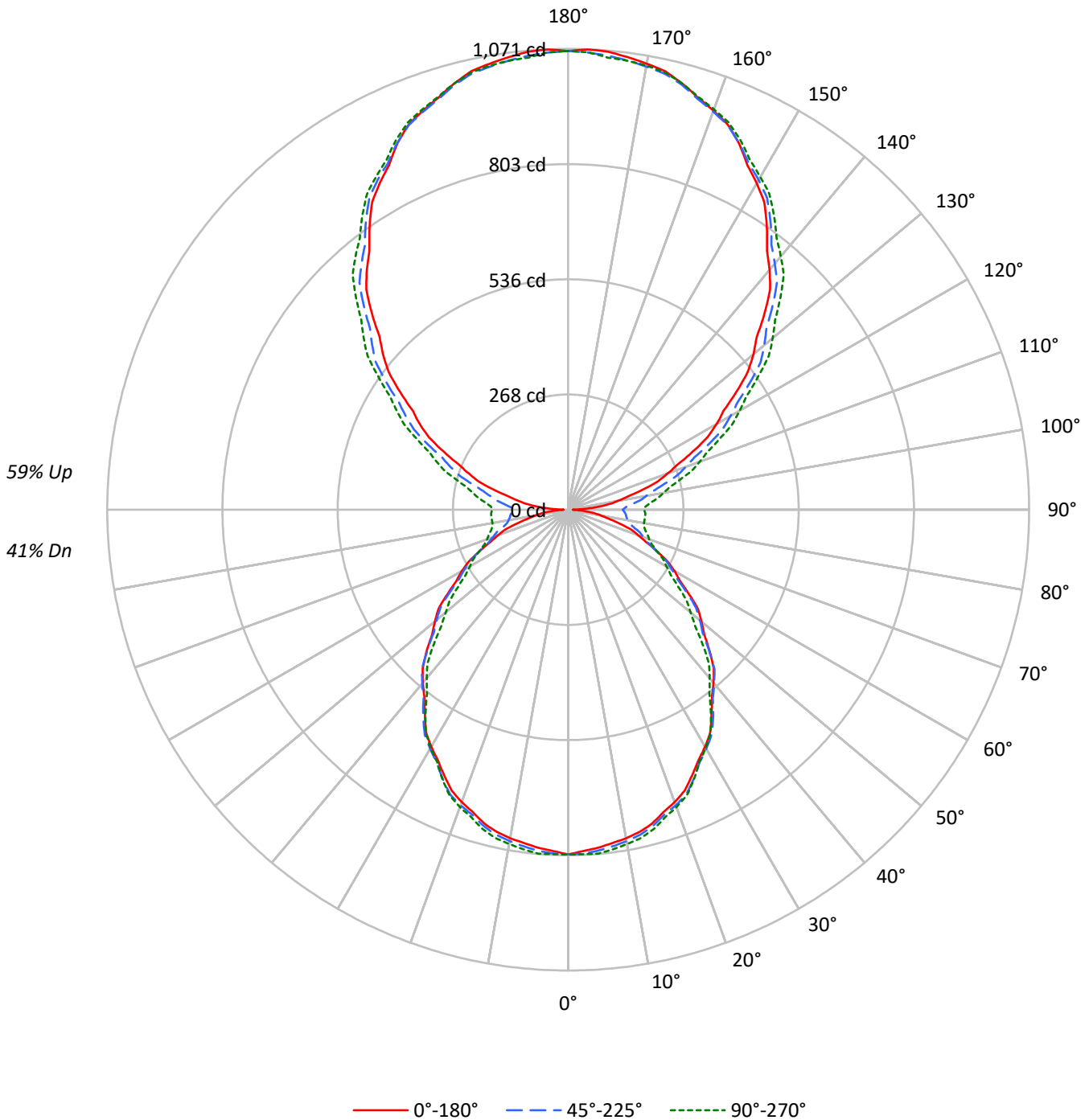
Lumens per Lamp: N/A
Luminaire Lumens: 5213.9 lumens
Efficiency: N/A
Efficacy: 148.5 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 1.19 / 1.3
Luminous Opening: Rectangular w/ Sides (W: 0.17' x L: 4' x H: 0.33')
CIE Type: General Diffuse

Input Watts (W): 35.1
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	105	105	105	105	96	96	96	96	79	79	79	63	63	63	48	48	48	41																				
1	95	91	86	83	86	83	79	76	68	65	63	54	52	51	41	40	39	33																				
2	86	79	73	67	78	72	67	62	59	55	52	47	44	42	36	34	33	28																				
3	79	69	62	56	71	63	57	52	52	47	43	42	38	36	32	30	28	23																				
4	72	61	53	47	65	56	49	44	46	41	37	37	33	30	29	26	24	20																				
5	66	55	46	40	60	50	43	38	41	36	32	33	29	26	26	23	21	17																				
6	61	49	41	35	55	45	38	33	37	32	28	30	26	23	24	21	18	15																				
7	56	44	36	31	51	41	34	29	34	28	24	27	23	20	22	19	16	14																				
8	52	40	32	27	47	37	30	25	31	25	22	25	21	18	20	17	15	12																				
9	49	36	29	24	44	34	27	22	28	23	19	23	19	16	18	15	13	11																				
10	45	33	26	21	41	31	24	20	26	21	17	21	17	15	17	14	12	10																				

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	12936	12936	12936
5°	12692	11423	11067
10°	12525	10177	9561
15°	12341	9114	8363
20°	12059	8177	7315
25°	11683	7290	6373
30°	11313	6465	5532
35°	10811	5698	4749
40°	10344	4971	4025
45°	9803	4273	3359
50°	9231	3642	2756
55°	8626	3058	2280
60°	8048	2531	1908
65°	7335	2090	1635
70°	6649	1736	1456
75°	5815	1510	1368
80°	4862	1395	1347
85°	3539	1399	1397

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 9803 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	75.7	1.5
10°-20°	214.8	4.1
20°-30°	317.2	6.1
30°-40°	365.1	7.0
40°-50°	354.4	6.8
50°-60°	299.6	5.7
60°-70°	228.2	4.4
70°-80°	166.3	3.2
80°-90°	132.5	2.5
90°-100°	151.9	2.9
100°-110°	241.2	4.6
110°-120°	354.6	6.8
120°-130°	458.6	8.8
130°-140°	518.6	9.9
140°-150°	512.4	9.8
150°-160°	433.4	8.3
160°-170°	288.6	5.5
170°-180°	100.9	1.9
0°-30°	607.6	11.7
0°-40°	972.7	18.7
0°-60°	1626.7	31.2
0°-90°	2153.6	41.3
90°-120°	747.7	14.3
90°-150°	2237.3	42.9
90°-180°	3060.0	58.7
0°-180°	5213.9	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	801	801	801	801	801	
5°	789	803	796	797	802	75
15°	755	768	760	763	768	212
25°	681	694	690	687	691	314
35°	580	593	587	578	578	364
45°	465	473	463	448	441	358
55°	343	352	337	318	312	307
65°	226	234	228	226	226	225
75°	122	131	157	179	186	131
85°	37	72	135	170	180	40
90°	11	60	127	164	176	10
95°	62	84	149	186	194	62
105°	178	186	231	263	268	189
115°	319	332	360	382	387	317
125°	476	493	516	534	539	427
135°	645	659	672	689	697	497
145°	805	815	819	825	834	503
155°	939	945	940	942	947	431
165°	1025	1030	1022	1019	1025	289
175°	1068	1073	1059	1055	1055	101
180°	1066	1066	1066	1066	1066	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	801.2	801.2	801.2	801.2	801.2
2.5°	794.0	805.5	799.4	800.3	801.2
5°	788.8	803.2	795.6	796.8	802.3
7.5°	781.5	795.7	789.2	789.6	796.0
10°	775.2	788.5	782.0	783.2	788.8
12.5°	767.0	781.2	773.8	776.0	781.5
15°	754.8	768.1	760.5	762.9	768.4
17.5°	736.7	749.8	742.8	743.6	749.2
20°	723.1	735.3	731.1	730.0	735.6
22.5°	706.8	719.9	716.6	712.9	719.3
25°	681.3	694.5	690.3	687.0	691.4
27.5°	655.9	668.1	661.6	656.9	660.2
30°	636.0	648.2	641.7	636.1	639.4
32.5°	614.3	627.3	619.9	613.4	614.9
35°	580.5	592.7	587.3	578.3	578.3
37.5°	548.6	558.8	551.8	541.1	538.7
40°	525.1	536.2	527.4	514.8	511.5
42.5°	500.6	511.7	502.9	488.5	483.4
45°	465.1	472.9	462.8	448.0	441.3
47.5°	428.4	437.3	423.9	407.2	399.3
50°	404.0	412.9	399.5	380.0	371.2
52.5°	380.5	388.4	374.1	353.8	346.7
55°	342.9	351.7	337.2	317.9	312.3
57.5°	307.8	316.4	301.0	288.0	282.7
60°	285.2	292.9	278.4	268.1	263.7
62.5°	259.8	268.5	255.8	250.9	248.3
65°	226.3	234.1	227.5	226.3	226.3
67.5°	194.9	201.5	201.0	207.8	210.3
70°	173.1	179.8	185.6	197.0	200.3
72.5°	153.2	159.9	173.8	188.9	193.1
75°	122.2	131.1	157.3	179.0	185.6
77.5°	95.1	105.2	145.8	172.6	180.6
80°	77.0	92.4	140.3	170.0	178.8
82.5°	60.7	81.5	136.7	170.0	178.8
85°	37.3	71.6	134.7	170.0	179.9
87.5°	18.6	64.6	131.3	168.0	179.3
90°	11.3	60.0	126.7	164.4	176.5
92.5°	30.3	66.6	134.0	170.6	180.2
95°	62.2	84.4	149.4	185.8	193.5
97.5°	93.9	108.5	169.1	203.0	210.5
100°	116.6	127.6	184.5	217.4	224.1
102.5°	141.0	149.4	202.6	233.7	241.3
105°	177.7	186.5	230.9	262.7	268.2
107.5°	218.4	227.9	265.5	295.5	301.2
110°	245.6	257.7	290.8	318.1	324.8



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	275.4	287.6	317.1	342.6	349.2
115°	319.1	332.4	359.9	381.5	387.0
117.5°	364.8	379.0	404.0	424.3	429.6
120°	398.3	411.6	435.7	455.0	459.5
122.5°	428.2	443.3	467.4	486.7	491.1
125°	476.4	493.0	516.0	534.2	538.7
127.5°	526.0	542.2	563.3	581.8	587.6
130°	561.3	575.7	594.1	613.5	620.2
132.5°	593.9	608.3	624.9	644.3	651.8
135°	645.0	659.4	672.2	689.4	697.1
137.5°	694.2	708.1	717.9	731.5	741.2
140°	727.7	739.8	746.9	759.5	768.4
142.5°	758.4	770.6	775.9	786.7	795.6
145°	804.6	814.6	819.3	825.2	834.0
147.5°	847.8	857.6	859.6	864.7	870.2
150°	875.9	884.8	885.0	887.3	892.9
152.5°	902.2	910.1	907.6	909.1	915.5
155°	939.3	944.8	940.4	941.7	947.2
157.5°	968.7	974.2	967.3	969.5	973.9
160°	986.8	992.3	984.5	985.8	990.2
162.5°	1004.0	1007.8	1000.8	999.4	1005.6
165°	1025.3	1029.7	1021.9	1018.6	1025.3
167.5°	1043.4	1047.8	1037.5	1034.0	1040.7
170°	1052.4	1056.9	1045.7	1041.3	1047.9
172.5°	1060.6	1065.0	1052.9	1047.6	1052.4
175°	1068.3	1072.7	1059.2	1054.7	1054.7
177.5°	1070.6	1073.2	1063.3	1058.9	1064.2
180°	1066.0	1066.0	1066.0	1066.0	1066.0

(END OF REPORT)