

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: P644379

Luminaire Tested: CRQ4DIP-SR4F0-50D75U840-FLLFLL-1DUDD-WW

Issue Date: 2/20/2023



Test Information

Test Method: LM-79-2019
Report Number: P644379
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-SR4F0-50D75U840-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: 4000K CCT, 80 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

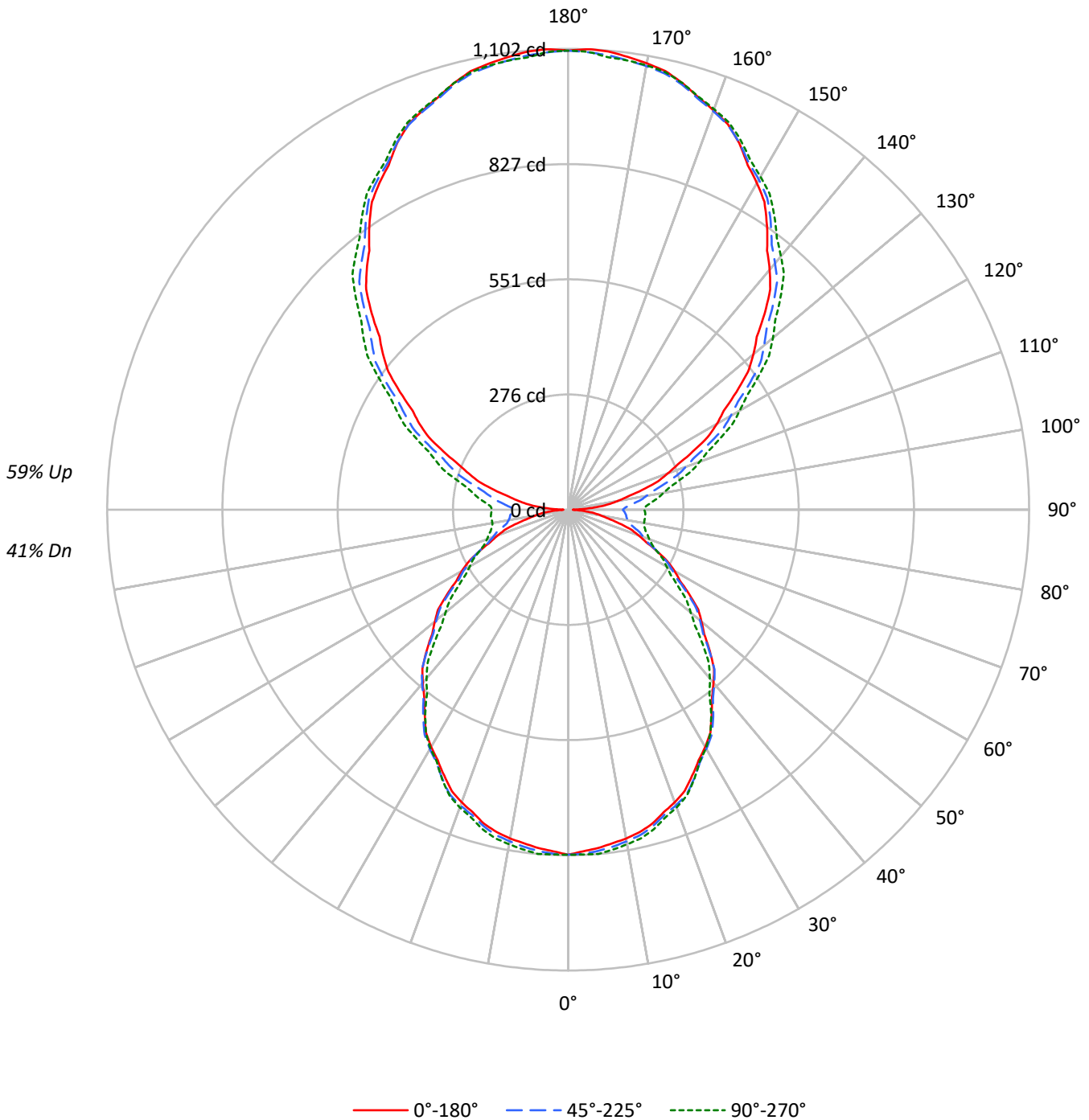
Lumens per Lamp: N/A
Luminaire Lumens: 5369.4 lumens
Efficiency: N/A
Efficacy: 153.0 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 1.19 / 1.3
Luminous Opening: Rectangular w/ Sides (W: 0.17' x L: 4' x H: 0.33')
CIE Type: General Diffuse

Input Watts (W): 35.1
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	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°	13322	13322	13322
5°	13070	11763	11398
10°	12899	10480	9846
15°	12709	9385	8612
20°	12419	8420	7532
25°	12031	7508	6564
30°	11651	6657	5698
35°	11133	5868	4890
40°	10651	5119	4146
45°	10096	4400	3459
50°	9505	3750	2838
55°	8882	3150	2348
60°	8288	2607	1964
65°	7555	2151	1684
70°	6849	1787	1499
75°	5991	1555	1408
80°	5001	1436	1387
85°	3653	1440	1439

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 10096 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	77.9	1.5
10°-20°	221.2	4.1
20°-30°	326.6	6.1
30°-40°	376.0	7.0
40°-50°	365.0	6.8
50°-60°	308.5	5.7
60°-70°	235.0	4.4
70°-80°	171.2	3.2
80°-90°	136.4	2.5
90°-100°	156.4	2.9
100°-110°	248.3	4.6
110°-120°	365.2	6.8
120°-130°	472.2	8.8
130°-140°	534.1	9.9
140°-150°	527.7	9.8
150°-160°	446.4	8.3
160°-170°	297.2	5.5
170°-180°	103.9	1.9
0°-30°	625.7	11.7
0°-40°	1001.7	18.7
0°-60°	1675.2	31.2
0°-90°	2217.9	41.3
90°-120°	770.0	14.3
90°-150°	2304.0	42.9
90°-180°	3152.0	58.7
0°-180°	5369.4	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	825	825	825	825	825	
5°	812	827	819	821	826	77
15°	777	791	783	786	791	219
25°	702	715	711	708	712	323
35°	598	610	605	596	596	374
45°	479	487	477	461	454	369
55°	353	362	347	327	322	317
65°	233	241	234	233	233	232
75°	126	135	162	184	191	135
85°	38	74	139	175	185	41
90°	12	62	130	169	182	10
95°	64	87	154	191	199	64
105°	183	192	238	270	276	195
115°	329	342	371	393	399	326
125°	491	508	531	550	555	440
135°	664	679	692	710	718	512
145°	829	839	844	850	859	518
155°	967	973	968	970	975	444
165°	1056	1060	1052	1049	1056	298
175°	1100	1105	1091	1086	1086	104
180°	1098	1098	1098	1098	1098	

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CATALOG NUMBER: CRQ4DIP-SR4F0-50D75U840-FLLFLL-1DUDD-WW

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	825.1	825.1	825.1	825.1	825.1
2.5°	817.6	829.5	823.2	824.2	825.1
5°	812.3	827.1	819.3	820.6	826.3
7.5°	804.8	819.4	812.7	813.1	819.7
10°	798.3	812.0	805.3	806.6	812.3
12.5°	789.9	804.5	796.9	799.1	804.8
15°	777.3	791.0	783.1	785.6	791.3
17.5°	758.7	772.1	765.0	765.8	771.5
20°	744.7	757.2	752.8	751.8	757.5
22.5°	727.9	741.4	737.9	734.1	740.7
25°	701.6	715.2	710.9	707.5	712.1
27.5°	675.5	688.0	681.3	676.5	679.9
30°	655.0	667.5	660.8	655.0	658.5
32.5°	632.6	646.0	638.4	631.7	633.3
35°	597.8	610.4	604.8	595.5	595.5
37.5°	565.0	575.5	568.2	557.2	554.7
40°	540.7	552.1	543.1	530.2	526.8
42.5°	515.6	527.0	517.9	503.1	497.9
45°	479.0	487.0	476.6	461.3	454.5
47.5°	441.2	450.3	436.6	419.4	411.2
50°	416.0	425.2	411.4	391.4	382.3
52.5°	391.8	400.0	385.3	364.4	357.1
55°	353.1	362.2	347.3	327.3	321.7
57.5°	317.0	325.9	310.0	296.6	291.1
60°	293.7	301.7	286.7	276.1	271.5
62.5°	267.6	276.5	263.4	258.4	255.7
65°	233.1	241.1	234.2	233.1	233.1
67.5°	200.7	207.5	207.0	214.0	216.5
70°	178.3	185.1	191.1	202.9	206.3
72.5°	157.8	164.6	179.0	194.5	198.8
75°	125.9	135.0	162.0	184.3	191.1
77.5°	97.9	108.4	150.1	177.8	186.0
80°	79.2	95.2	144.5	175.0	184.1
82.5°	62.5	83.9	140.8	175.0	184.1
85°	38.5	73.8	138.7	175.0	185.3
87.5°	19.1	66.5	135.2	173.0	184.6
90°	11.7	61.8	130.5	169.3	181.8
92.5°	31.2	68.6	138.0	175.7	185.5
95°	64.1	86.9	153.8	191.3	199.3
97.5°	96.7	111.8	174.1	209.0	216.8
100°	120.0	131.4	190.0	223.9	230.7
102.5°	145.2	153.9	208.6	240.7	248.5
105°	183.0	192.1	237.7	270.5	276.2
107.5°	224.9	234.7	273.4	304.3	310.2
110°	252.9	265.4	299.5	327.6	334.5



TEST NUMBER: P644379

CATALOG NUMBER: CRQ4DIP-SR4F0-50D75U840-FLLFLL-1DUDD-WW

CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	283.7	296.2	326.5	352.8	359.6
115°	328.6	342.3	370.6	392.9	398.6
117.5°	375.7	390.3	416.0	436.9	442.4
120°	410.2	423.9	448.7	468.6	473.2
122.5°	441.0	456.5	481.3	501.2	505.8
125°	490.6	507.7	531.4	550.2	554.7
127.5°	541.7	558.3	580.1	599.2	605.1
130°	578.0	592.9	611.8	631.8	638.6
132.5°	611.6	626.4	643.5	663.5	671.3
135°	664.3	679.1	692.2	709.9	717.9
137.5°	714.9	729.2	739.3	753.3	763.3
140°	749.4	761.9	769.2	782.2	791.3
142.5°	781.1	793.6	799.0	810.2	819.3
145°	828.6	838.9	843.7	849.8	858.9
147.5°	873.1	883.1	885.2	890.5	896.2
150°	902.0	911.1	911.3	913.8	919.5
152.5°	929.1	937.3	934.7	936.2	942.8
155°	967.3	973.0	968.4	969.7	975.4
157.5°	997.6	1003.3	996.2	998.4	1002.9
160°	1016.2	1021.9	1013.9	1015.2	1019.7
162.5°	1033.9	1037.8	1030.7	1029.2	1035.6
165°	1055.9	1060.4	1052.4	1049.0	1055.9
167.5°	1074.5	1079.1	1068.4	1064.9	1071.7
170°	1083.8	1088.4	1076.8	1072.3	1079.2
172.5°	1092.2	1096.8	1084.3	1078.8	1083.8
175°	1100.1	1104.7	1090.8	1086.2	1086.2
177.5°	1102.5	1105.2	1095.0	1090.5	1095.9
180°	1097.8	1097.8	1097.8	1097.8	1097.8

(END OF REPORT)