

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: P644215

Luminaire Tested: CRQ4DIP-SR4F0-100D25U935-FLLFLL-1DUDD-WW

Issue Date: 2/20/2023



Test Information

Test Method: LM-79-2019
Report Number: P644215
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-SR4F0-100D25U935-FLLFLL-1DUDD-WW
Description: NEO-RAY CIRQUE SUSPENDED LED LUMINAIRE
DOWNLIGHT - CURVED FROSTED LENS - 1000 LUMENS PER FOOT
UPLIGHT - CURVED FROSTED LENS - 250 LUMENS PER FOOT
Light Source: 3500K CCT, 90 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

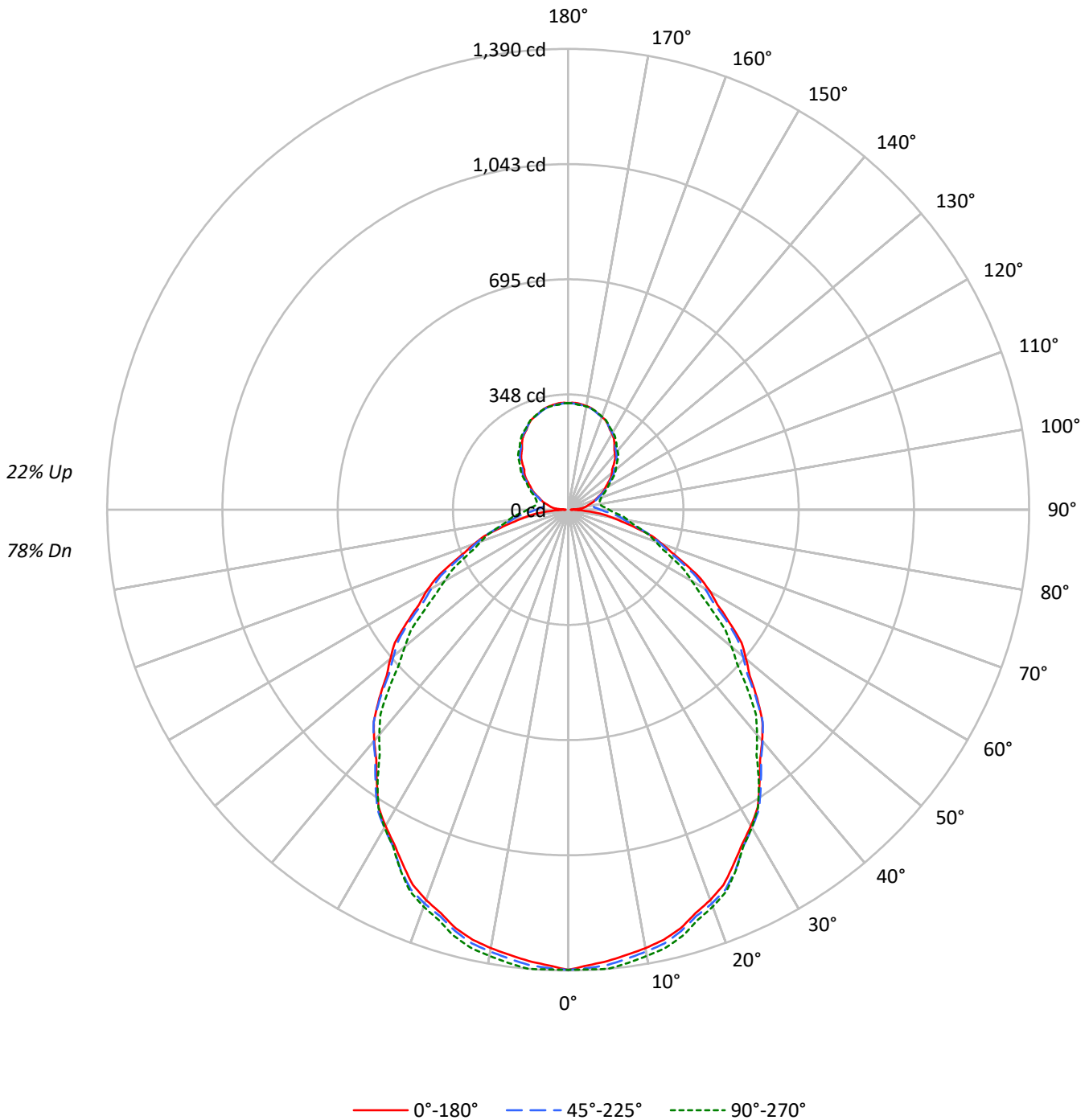
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 4528.3 lumens
Efficiency: N/A
Efficacy: 118.5 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: Semi-Direct

Input Watts (W): 38.2
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

TEST NUMBER: P644215
CATALOG NUMBER: CRQ4DIP-SR4F0-100D25U935-FLLFLL-1DUDD-WW

Luminous Intensity Polar Plot





TEST NUMBER: P644215

CATALOG NUMBER: CRQ4DIP-SR4F0-100D25U935-FLLFLL-1DUDD-WW

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	114	114	114	114	109	109	109	109	99	99	99	90	90	90	82	82	82	78																				
1	104	99	95	91	99	95	91	87	86	83	81	79	77	74	72	70	69	65																				
2	94	86	80	74	90	83	77	72	76	71	67	69	66	62	63	60	58	54																				
3	86	76	68	62	82	73	66	60	67	61	56	61	57	53	56	53	49	46																				
4	79	68	59	53	75	65	57	51	60	53	48	55	50	45	50	46	43	40																				
5	73	61	52	46	69	58	50	44	54	47	42	49	44	40	46	41	37	35																				
6	67	55	46	40	64	53	45	39	49	42	37	45	39	35	41	37	33	31																				
7	62	50	41	35	59	48	40	34	44	38	33	41	35	31	38	33	29	27																				
8	58	45	37	31	55	44	36	31	41	34	29	38	32	28	35	30	26	24																				
9	54	41	34	28	52	40	33	28	37	31	26	35	29	25	32	28	24	22																				
10	51	38	31	26	49	37	30	25	34	28	24	32	27	23	30	25	22	20																				

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	22410	22410	22410
5°	21987	19787	19174
10°	21698	17610	16563
15°	21380	15770	14488
20°	20890	14147	12671
25°	20239	12629	11042
30°	19599	11167	9584
35°	18730	9825	8226
40°	17921	8596	6973
45°	16984	7388	5820
50°	15992	6264	4774
55°	14942	5269	3867
60°	13940	4326	3117
65°	12709	3471	2505
70°	11524	2750	2028
75°	10074	2166	1666
80°	8417	1692	1382
85°	6139	1347	1163

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 16984 cd/sqm



TEST NUMBER: P644215

CATALOG NUMBER: CRQ4DIP-SR4F0-100D25U935-FLLFLL-1DUDD-WW

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	131.0	2.9
10°-20°	371.8	8.2
20°-30°	548.9	12.1
30°-40°	631.2	13.9
40°-50°	612.4	13.5
50°-60°	513.5	11.3
60°-70°	373.7	8.3
70°-80°	236.4	5.2
80°-90°	130.5	2.9
90°-100°	81.7	1.8
100°-110°	85.7	1.9
110°-120°	111.5	2.5
120°-130°	140.2	3.1
130°-140°	156.7	3.5
140°-150°	154.6	3.4
150°-160°	130.8	2.9
160°-170°	87.1	1.9
170°-180°	30.4	0.7
0°-30°	1051.8	23.2
0°-40°	1683.0	37.2
0°-60°	2808.9	62.0
0°-90°	3549.5	78.4
90°-120°	278.9	6.2
90°-150°	730.5	16.1
90°-180°	979.0	21.6
0°-180°	4528.3	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1388	1388	1388	1388	1388	
5°	1366	1391	1378	1380	1390	130
15°	1308	1328	1316	1322	1331	368
25°	1180	1200	1196	1190	1198	544
35°	1006	1022	1013	1002	1002	630
45°	806	814	800	776	765	621
55°	594	603	581	546	530	533
65°	392	396	378	355	347	390
75°	212	214	226	227	226	226
85°	65	86	130	147	150	68
90°	8	50	96	118	123	9
95°	35	40	79	101	105	33
105°	70	63	78	94	99	74
115°	108	105	112	118	120	107
125°	150	152	157	161	162	134
135°	195	199	203	208	210	150
145°	243	246	247	249	252	152
155°	283	285	284	284	286	130
165°	309	311	308	307	309	87
175°	322	324	320	318	318	31
180°	322	322	322	322	322	



TEST NUMBER: P644215

CATALOG NUMBER: CRQ4DIP-SR4F0-100D25U935-FLLFLL-1DUDD-WW

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1388.0	1388.0	1388.0	1388.0	1388.0
2.5°	1375.5	1395.4	1383.6	1386.5	1388.0
5°	1366.5	1391.4	1378.2	1380.4	1390.0
7.5°	1353.9	1377.2	1365.6	1367.9	1379.0
10°	1342.9	1365.9	1353.1	1356.9	1366.5
12.5°	1328.8	1350.8	1340.2	1344.3	1353.9
15°	1307.6	1327.5	1315.8	1321.6	1331.2
17.5°	1276.3	1297.3	1285.2	1288.3	1297.8
20°	1252.7	1272.2	1264.8	1264.7	1274.3
22.5°	1224.5	1245.5	1239.8	1235.0	1246.1
25°	1180.2	1200.0	1195.9	1190.2	1197.9
27.5°	1136.3	1151.7	1144.2	1138.0	1143.7
30°	1101.8	1119.7	1108.4	1101.9	1107.7
32.5°	1064.1	1082.3	1070.7	1062.6	1065.3
35°	1005.7	1022.1	1012.6	1001.8	1001.8
37.5°	950.4	961.7	954.3	937.4	933.2
40°	909.7	922.5	912.0	891.9	886.1
42.5°	867.3	880.2	868.3	846.3	837.5
45°	805.8	814.4	800.2	776.1	764.6
47.5°	742.2	751.6	732.1	705.5	691.7
50°	699.9	710.5	687.2	658.4	643.0
52.5°	659.1	666.9	644.6	611.6	598.1
55°	594.0	603.0	581.0	545.7	529.8
57.5°	533.2	541.9	516.3	484.3	471.6
60°	494.0	501.1	475.8	443.3	430.9
62.5°	450.1	457.5	434.0	407.0	395.2
65°	392.1	396.0	377.9	354.7	346.8
67.5°	337.6	339.6	325.8	310.9	305.3
70°	300.0	302.0	294.0	284.3	279.0
72.5°	265.4	266.2	264.5	259.9	256.1
75°	211.7	214.4	225.6	227.2	226.0
77.5°	164.7	165.2	191.3	198.7	199.6
80°	133.3	138.0	170.2	182.4	183.5
82.5°	105.1	113.9	153.6	168.1	169.2
85°	64.7	86.1	129.7	146.8	149.8
87.5°	29.9	63.1	109.5	129.0	132.8
90°	8.3	49.9	96.5	117.6	122.9
92.5°	19.2	44.4	88.4	109.2	114.9
95°	35.0	40.1	79.1	101.4	105.3
97.5°	47.8	42.4	75.6	95.3	99.5
100°	54.6	46.9	75.1	93.2	98.4
102.5°	60.7	52.1	75.4	92.9	97.1
105°	69.8	63.0	77.7	93.9	98.7
107.5°	80.1	73.8	84.6	98.3	101.6
110°	87.0	82.8	91.0	102.5	106.1



TEST NUMBER: P644215

CATALOG NUMBER: CRQ4DIP-SR4F0-100D25U935-FLLFLL-1DUDD-WW

CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	96.1	91.8	98.9	107.3	110.9
115°	107.6	105.3	111.8	118.3	120.0
117.5°	119.5	119.3	124.8	129.3	130.9
120°	128.3	129.1	133.1	137.3	138.6
122.5°	137.3	137.4	142.6	146.9	148.2
125°	150.2	152.1	157.3	161.2	162.5
127.5°	163.2	166.8	171.6	175.5	177.3
130°	172.6	176.9	180.9	185.1	187.1
132.5°	179.8	184.2	188.9	194.4	196.7
135°	194.6	199.0	202.8	208.0	210.3
137.5°	209.4	213.6	216.6	220.7	223.6
140°	219.5	223.2	225.4	229.2	231.8
142.5°	228.8	232.5	234.1	237.4	240.0
145°	242.8	245.8	247.2	249.0	251.6
147.5°	255.8	258.7	259.4	260.9	262.6
150°	264.3	266.9	267.0	267.7	269.4
152.5°	272.2	274.6	273.8	274.3	276.2
155°	283.4	285.1	283.7	284.1	285.8
157.5°	292.3	293.9	291.9	292.5	293.8
160°	297.7	299.4	297.1	297.4	298.8
162.5°	302.9	304.1	302.0	301.5	303.4
165°	309.3	310.7	308.3	307.3	309.3
167.5°	314.8	316.1	313.0	312.0	314.0
170°	317.5	318.9	315.5	314.2	316.2
172.5°	320.0	321.3	317.7	316.1	317.5
175°	322.3	323.7	319.6	318.2	318.2
177.5°	323.0	323.8	320.8	319.5	321.1
180°	321.6	321.6	321.6	321.6	321.6

(END OF REPORT)