

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: P644217

Luminaire Tested: CRQ4DIP-SR4F0-100D25U940-FLLFLL-1DUDD-WW

Issue Date: 2/20/2023



Test Information

Test Method: LM-79-2019
Report Number: P644217
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-SR4F0-100D25U940-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: 4000K CCT, 90 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

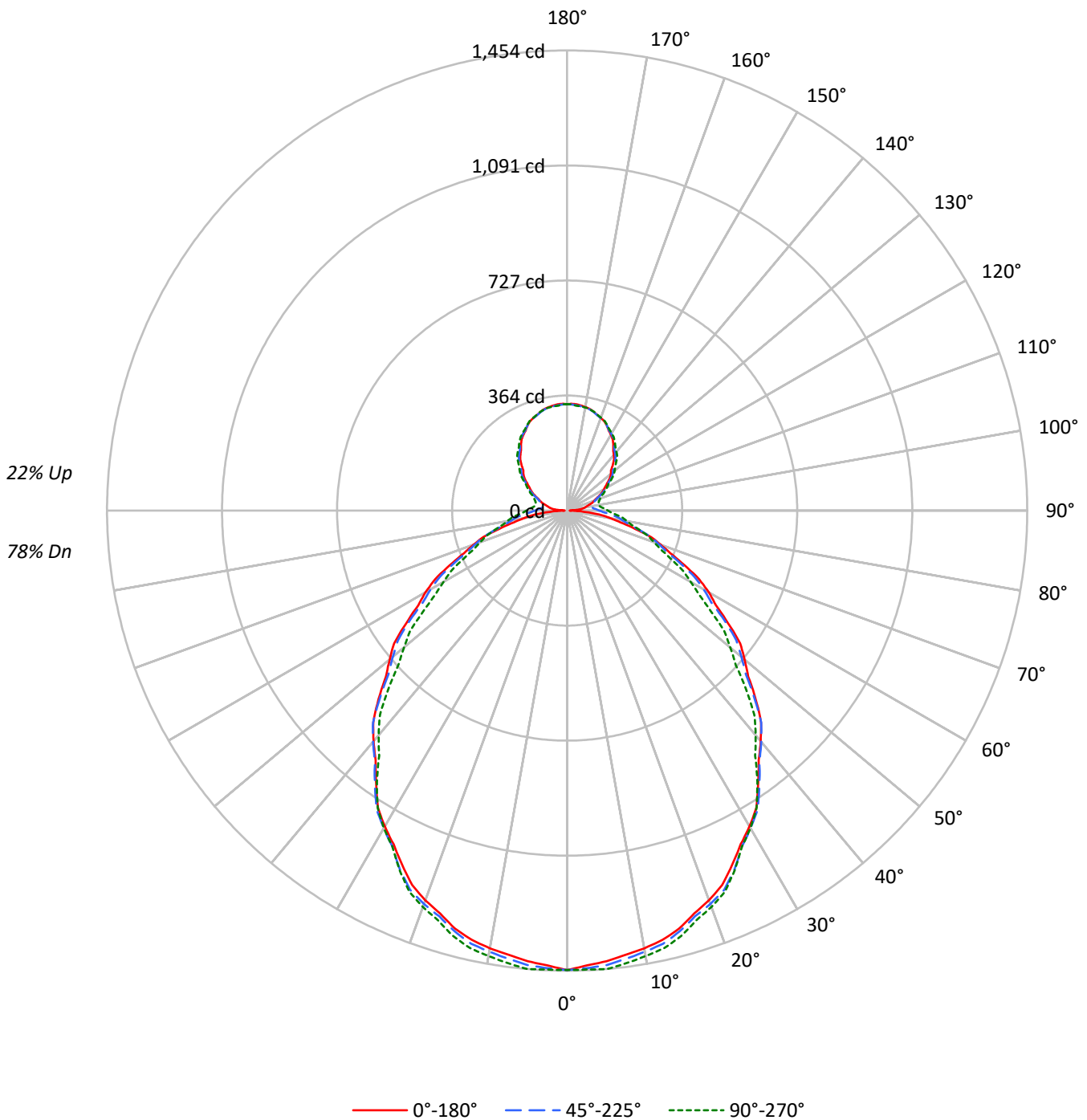
Lumens per Lamp: N/A
Luminaire Lumens: 4735.9 lumens
Efficiency: N/A
Efficacy: 124.0 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 1.19 / 1.3
Luminous Opening: Rectangular w/ Sides (W: 0.17' x L: 4' x H: 0.33')
CIE Type: Semi-Direct

Input Watts (W): 38.2
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	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°	23439	23439	23439
5°	22995	20694	20052
10°	22693	18417	17321
15°	22361	16492	15152
20°	21849	14795	13252
25°	21167	13208	11548
30°	20497	11679	10024
35°	19588	10276	8603
40°	18742	8990	7294
45°	17762	7727	6086
50°	16726	6551	4993
55°	15629	5510	4044
60°	14581	4524	3259
65°	13292	3630	2620
70°	12050	2876	2121
75°	10535	2265	1742
80°	8802	1769	1446
85°	6423	1408	1217

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 17762 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	137.0	2.9
10°-20°	388.9	8.2
20°-30°	574.1	12.1
30°-40°	660.2	13.9
40°-50°	640.5	13.5
50°-60°	537.1	11.3
60°-70°	390.8	8.3
70°-80°	247.3	5.2
80°-90°	136.5	2.9
90°-100°	85.4	1.8
100°-110°	89.7	1.9
110°-120°	116.6	2.5
120°-130°	146.7	3.1
130°-140°	163.9	3.5
140°-150°	161.7	3.4
150°-160°	136.8	2.9
160°-170°	91.1	1.9
170°-180°	31.8	0.7
0°-30°	1100.0	23.2
0°-40°	1760.2	37.2
0°-60°	2937.7	62.0
0°-90°	3712.3	78.4
90°-120°	291.7	6.2
90°-150°	764.0	16.1
90°-180°	1024.0	21.6
0°-180°	4735.9	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1452	1452	1452	1452	1452	
5°	1429	1455	1441	1444	1454	136
15°	1368	1388	1376	1382	1392	385
25°	1234	1255	1251	1245	1253	569
35°	1052	1069	1059	1048	1048	659
45°	843	852	837	812	800	650
55°	621	631	608	571	554	557
65°	410	414	395	371	363	408
75°	221	224	236	238	236	237
85°	68	90	136	154	157	72
90°	9	52	101	123	128	9
95°	37	42	83	106	110	34
105°	73	66	81	98	103	78
115°	113	110	117	124	126	112
125°	157	159	164	169	170	141
135°	204	208	212	218	220	157
145°	254	257	258	260	263	159
155°	296	298	297	297	299	136
165°	324	325	322	321	324	91
175°	337	338	334	333	333	32
180°	336	336	336	336	336	

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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1451.7	1451.7	1451.7	1451.7	1451.7
2.5°	1438.5	1459.4	1447.0	1450.1	1451.7
5°	1429.1	1455.2	1441.4	1443.7	1453.7
7.5°	1416.0	1440.3	1428.2	1430.6	1442.2
10°	1404.5	1428.6	1415.1	1419.1	1429.1
12.5°	1389.7	1412.7	1401.7	1406.0	1416.0
15°	1367.6	1388.3	1376.1	1382.2	1392.2
17.5°	1334.8	1356.8	1344.2	1347.3	1357.3
20°	1310.2	1330.6	1322.8	1322.7	1332.7
22.5°	1280.7	1302.7	1296.6	1291.6	1303.2
25°	1234.3	1255.1	1250.7	1244.8	1252.8
27.5°	1188.4	1204.5	1196.6	1190.2	1196.2
30°	1152.3	1171.0	1159.2	1152.4	1158.5
32.5°	1112.9	1132.0	1119.8	1111.4	1114.2
35°	1051.8	1068.9	1059.1	1047.7	1047.7
37.5°	994.0	1005.8	998.1	980.4	976.0
40°	951.4	964.8	953.8	932.8	926.8
42.5°	907.1	920.5	908.1	885.1	875.9
45°	842.7	851.8	836.9	811.7	799.6
47.5°	776.3	786.0	765.7	737.8	723.4
50°	732.0	743.1	718.7	688.6	672.5
52.5°	689.3	697.5	674.1	639.7	625.5
55°	621.3	630.7	607.6	570.7	554.0
57.5°	557.7	566.7	540.0	506.5	493.2
60°	516.7	524.1	497.6	463.6	450.6
62.5°	470.8	478.5	453.9	425.7	413.3
65°	410.1	414.2	395.2	370.9	362.7
67.5°	353.1	355.2	340.8	325.2	319.3
70°	313.7	315.8	307.5	297.4	291.8
72.5°	277.6	278.4	276.7	271.8	267.8
75°	221.4	224.2	235.9	237.6	236.4
77.5°	172.2	172.8	200.1	207.9	208.7
80°	139.4	144.3	178.0	190.7	191.9
82.5°	109.9	119.1	160.6	175.8	177.0
85°	67.7	90.1	135.6	153.5	156.7
87.5°	31.3	66.0	114.6	135.0	138.9
90°	8.7	52.2	101.0	123.0	128.5
92.5°	20.1	46.4	92.4	114.2	120.2
95°	36.6	41.9	82.7	106.1	110.2
97.5°	50.0	44.3	79.1	99.6	104.0
100°	57.1	49.0	78.5	97.5	102.9
102.5°	63.5	54.5	78.8	97.2	101.5
105°	73.0	65.9	81.3	98.2	103.3
107.5°	83.8	77.2	88.5	102.8	106.2
110°	91.0	86.6	95.2	107.2	111.0

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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	100.5	96.0	103.4	112.2	116.0
115°	112.6	110.1	116.9	123.8	125.5
117.5°	124.9	124.8	130.5	135.2	136.9
120°	134.2	135.0	139.2	143.6	145.0
122.5°	143.6	143.7	149.2	153.6	155.0
125°	157.1	159.0	164.5	168.6	170.0
127.5°	170.7	174.5	179.5	183.6	185.4
130°	180.5	185.0	189.2	193.6	195.7
132.5°	188.1	192.6	197.5	203.3	205.7
135°	203.5	208.1	212.1	217.5	220.0
137.5°	219.0	223.4	226.5	230.8	233.9
140°	229.6	233.5	235.7	239.7	242.5
142.5°	239.3	243.2	244.8	248.2	251.0
145°	253.9	257.0	258.5	260.4	263.2
147.5°	267.5	270.6	271.3	272.9	274.6
150°	276.4	279.2	279.3	280.0	281.8
152.5°	284.7	287.2	286.4	286.9	288.9
155°	296.4	298.1	296.7	297.1	298.9
157.5°	305.7	307.4	305.2	305.9	307.3
160°	311.4	313.1	310.7	311.1	312.5
162.5°	316.8	318.0	315.8	315.4	317.3
165°	323.5	324.9	322.5	321.4	323.5
167.5°	329.2	330.6	327.4	326.3	328.4
170°	332.1	333.5	330.0	328.6	330.7
172.5°	334.7	336.1	332.2	330.6	332.1
175°	337.1	338.5	334.2	332.8	332.8
177.5°	337.8	338.7	335.5	334.1	335.8
180°	336.4	336.4	336.4	336.4	336.4

(END OF REPORT)