

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: P644287

Luminaire Tested: CRQ4DIP-SR4F0-125D25U935-FLLFLL-1DUDD-WW

Issue Date: 2/20/2023



Test Information

Test Method: LM-79-2019
Report Number: P644287
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-SR4F0-125D25U935-FLLFLL-1DUDD-WW
Description: NEO-RAY CIRQUE SUSPENDED LED LUMINAIRE
DOWNLIGHT - CURVED FROSTED LENS - 1250 LUMENS PER FOOT
UPLIGHT - CURVED FROSTED LENS - 250 LUMENS PER FOOT
Light Source: 3500K CCT, 90 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

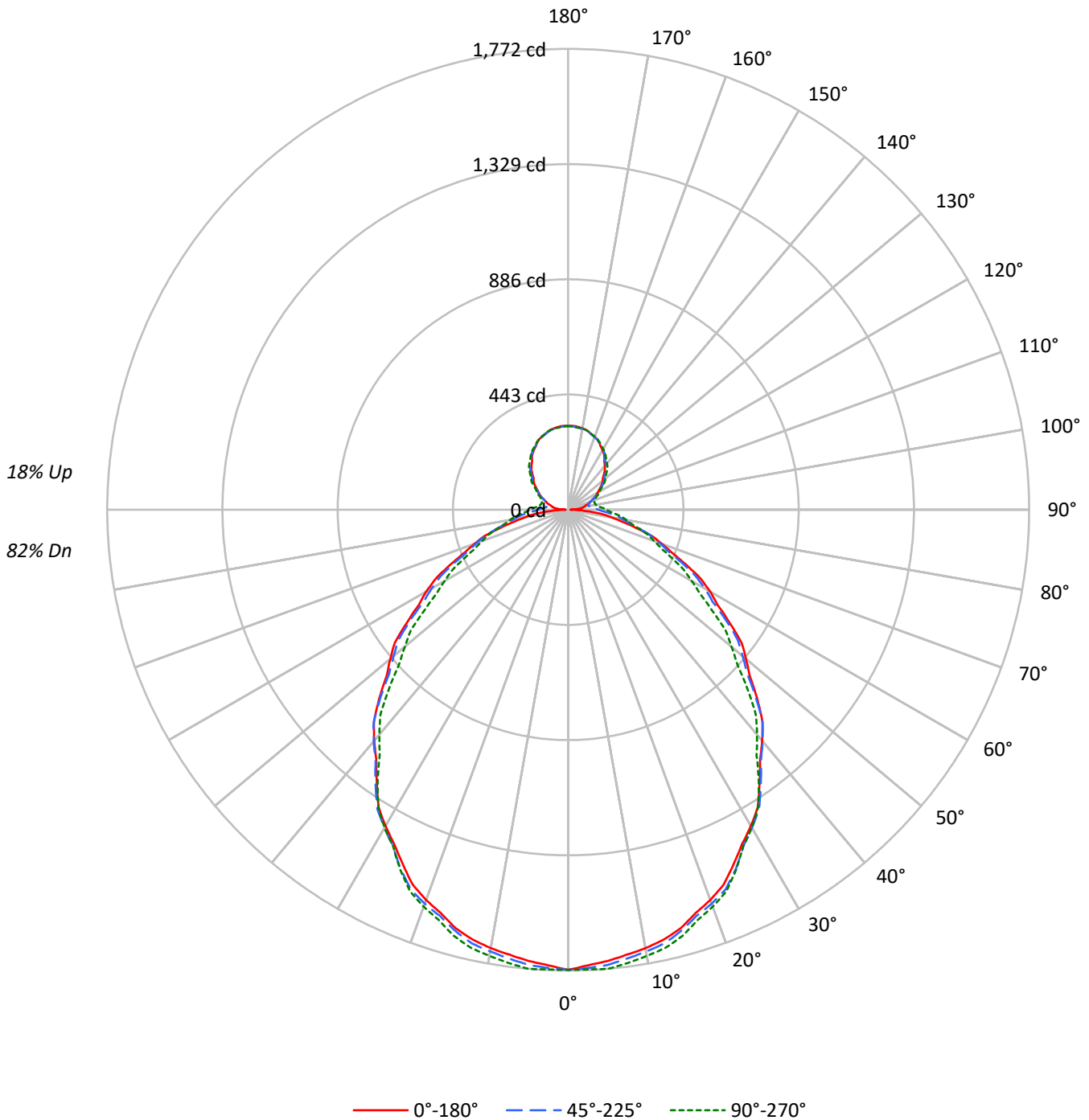
Lumens per Lamp: N/A
Luminaire Lumens: 5511.4 lumens
Efficiency: N/A
Efficacy: 114.1 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 1.19 / 1.3
Luminous Opening: Rectangular w/ Sides (W: 0.17' x L: 4' x H: 0.33')
CIE Type: Semi-Direct

Input Watts (W): 48.3
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				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	115	115	115	115	110	110	110	110	101	101	101	93	93	93	85	85	85	82
1	104	100	95	92	100	96	92	88	88	85	82	81	79	77	75	73	71	68
2	95	87	81	75	91	84	78	73	77	72	68	71	68	64	66	63	60	57
3	87	77	69	63	83	74	67	61	68	63	58	63	58	54	59	55	51	48
4	80	68	60	53	76	66	58	52	61	55	49	57	51	47	52	48	44	42
5	73	61	53	46	70	59	51	45	55	48	43	51	45	41	47	43	39	36
6	68	55	47	40	65	53	45	39	50	43	38	46	40	36	43	38	34	32
7	63	50	42	36	60	48	41	35	45	38	34	42	36	32	40	34	31	28
8	59	46	37	32	56	44	37	31	41	35	30	39	33	29	36	31	28	26
9	55	42	34	29	52	41	33	28	38	32	27	36	30	26	34	29	25	23
10	51	39	31	26	49	38	30	26	35	29	25	33	28	24	31	26	23	21

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	28568	28568	28568
5°	28028	25224	24441
10°	27660	22446	21113
15°	27254	20101	18468
20°	26630	18033	16152
25°	25798	16099	14075
30°	24983	14233	12217
35°	23876	12522	10486
40°	22843	10956	8890
45°	21648	9417	7418
50°	20386	7982	6085
55°	19048	6715	4924
60°	17772	5511	3963
65°	16200	4416	3174
70°	14689	3490	2556
75°	12843	2734	2082
80°	10727	2115	1707
85°	7828	1654	1410

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 21648 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	167.0	3.0
10°-20°	473.9	8.6
20°-30°	699.7	12.7
30°-40°	804.6	14.6
40°-50°	780.6	14.2
50°-60°	654.3	11.9
60°-70°	475.1	8.6
70°-80°	298.4	5.4
80°-90°	160.6	2.9
90°-100°	93.6	1.7
100°-110°	90.1	1.6
110°-120°	113.1	2.1
120°-130°	140.9	2.6
130°-140°	156.8	2.8
140°-150°	154.6	2.8
150°-160°	130.8	2.4
160°-170°	87.1	1.6
170°-180°	30.4	0.6
0°-30°	1340.7	24.3
0°-40°	2145.3	38.9
0°-60°	3580.1	65.0
0°-90°	4514.2	81.9
90°-120°	296.7	5.4
90°-150°	748.9	13.6
90°-180°	997.0	18.1
0°-180°	5511.4	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1769	1769	1769	1769	1769	
5°	1742	1774	1757	1760	1772	165
15°	1667	1692	1677	1685	1697	469
25°	1504	1530	1524	1517	1527	693
35°	1282	1303	1291	1277	1277	803
45°	1027	1038	1020	989	975	792
55°	757	768	740	695	675	679
65°	500	504	481	450	439	497
75°	270	273	285	285	282	289
85°	82	108	159	179	182	87
90°	10	60	116	140	146	11
95°	40	45	90	116	121	37
105°	75	65	80	99	105	80
115°	111	107	113	119	121	110
125°	152	153	158	161	162	136
135°	195	199	203	208	210	151
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	

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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1769.4	1769.4	1769.4	1769.4	1769.4
2.5°	1753.4	1778.8	1763.6	1767.4	1769.4
5°	1741.9	1773.6	1756.9	1759.6	1771.9
7.5°	1725.9	1755.5	1740.7	1743.7	1757.9
10°	1711.9	1741.2	1724.7	1729.6	1741.9
12.5°	1693.9	1721.8	1708.4	1713.7	1725.9
15°	1666.9	1692.0	1677.2	1684.7	1696.9
17.5°	1626.9	1653.6	1638.2	1642.2	1654.4
20°	1596.9	1621.7	1612.3	1612.2	1624.4
22.5°	1560.9	1587.7	1580.3	1574.2	1588.4
25°	1504.4	1529.6	1524.4	1517.2	1526.9
27.5°	1448.5	1467.8	1458.4	1450.6	1458.0
30°	1404.5	1427.1	1412.7	1404.7	1412.0
32.5°	1356.5	1379.4	1364.7	1354.6	1358.0
35°	1282.0	1302.6	1290.6	1277.0	1277.0
37.5°	1211.6	1225.6	1216.4	1194.9	1189.6
40°	1159.6	1175.6	1162.4	1136.9	1129.6
42.5°	1105.6	1121.6	1106.7	1078.8	1067.6
45°	1027.1	1037.9	1020.0	989.3	974.6
47.5°	946.2	957.7	933.1	899.3	881.7
50°	892.2	905.4	875.7	839.2	819.7
52.5°	840.2	849.8	821.5	779.6	762.3
55°	757.2	768.3	740.4	695.3	674.6
57.5°	679.8	690.4	657.9	616.5	600.1
60°	629.8	638.4	606.1	563.9	547.8
62.5°	573.8	582.7	552.7	517.3	501.7
65°	499.8	504.3	480.7	450.0	439.4
67.5°	430.3	432.3	414.1	393.5	385.8
70°	382.4	384.4	373.2	359.2	351.7
72.5°	338.4	338.7	335.1	327.4	321.9
75°	269.9	272.6	284.8	284.8	282.5
77.5°	209.9	209.6	240.3	247.5	247.8
80°	169.9	174.6	212.8	226.0	226.6
82.5°	134.0	143.6	191.0	207.0	207.6
85°	82.5	107.6	159.3	178.6	181.6
87.5°	38.0	77.6	132.8	155.1	158.9
90°	9.9	60.4	115.9	140.3	146.0
92.5°	22.5	52.5	104.3	128.4	135.1
95°	40.4	44.9	90.4	116.5	121.0
97.5°	54.2	45.6	83.8	106.6	111.4
100°	61.1	49.6	81.5	102.4	108.6
102.5°	66.7	54.5	80.1	100.4	105.2
105°	75.2	65.2	80.4	98.8	104.7
107.5°	84.9	75.5	86.1	101.3	105.1
110°	91.4	84.5	92.1	104.7	108.8

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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	100.4	93.5	100.0	108.6	112.7
115°	111.4	107.0	112.9	119.4	121.1
117.5°	122.6	121.0	125.8	129.7	131.3
120°	131.0	130.8	133.6	137.3	138.6
122.5°	140.0	138.6	143.2	146.9	148.2
125°	152.4	153.2	157.9	161.2	162.5
127.5°	164.7	167.9	172.1	175.5	177.3
130°	173.7	178.0	181.4	185.1	187.1
132.5°	180.1	184.4	189.0	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)