

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: P644335

Luminaire Tested: CRQ4DIP-SR4F0-50D125U935-FLLFLL-1DUDD-WW

Issue Date: 2/20/2023



Test Information

Test Method: LM-79-2019
Report Number: P644335
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-SR4F0-50D125U935-FLLFLL-1DUDD-WW
Description: NEO-RAY CIRQUE SUSPENDED LED LUMINAIRE
DOWNLIGHT - CURVED FROSTED LENS - 500 LUMENS PER FOOT
UPLIGHT - CURVED FROSTED LENS - 1250 LUMENS PER FOOT
Light Source: 3500K CCT, 90 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

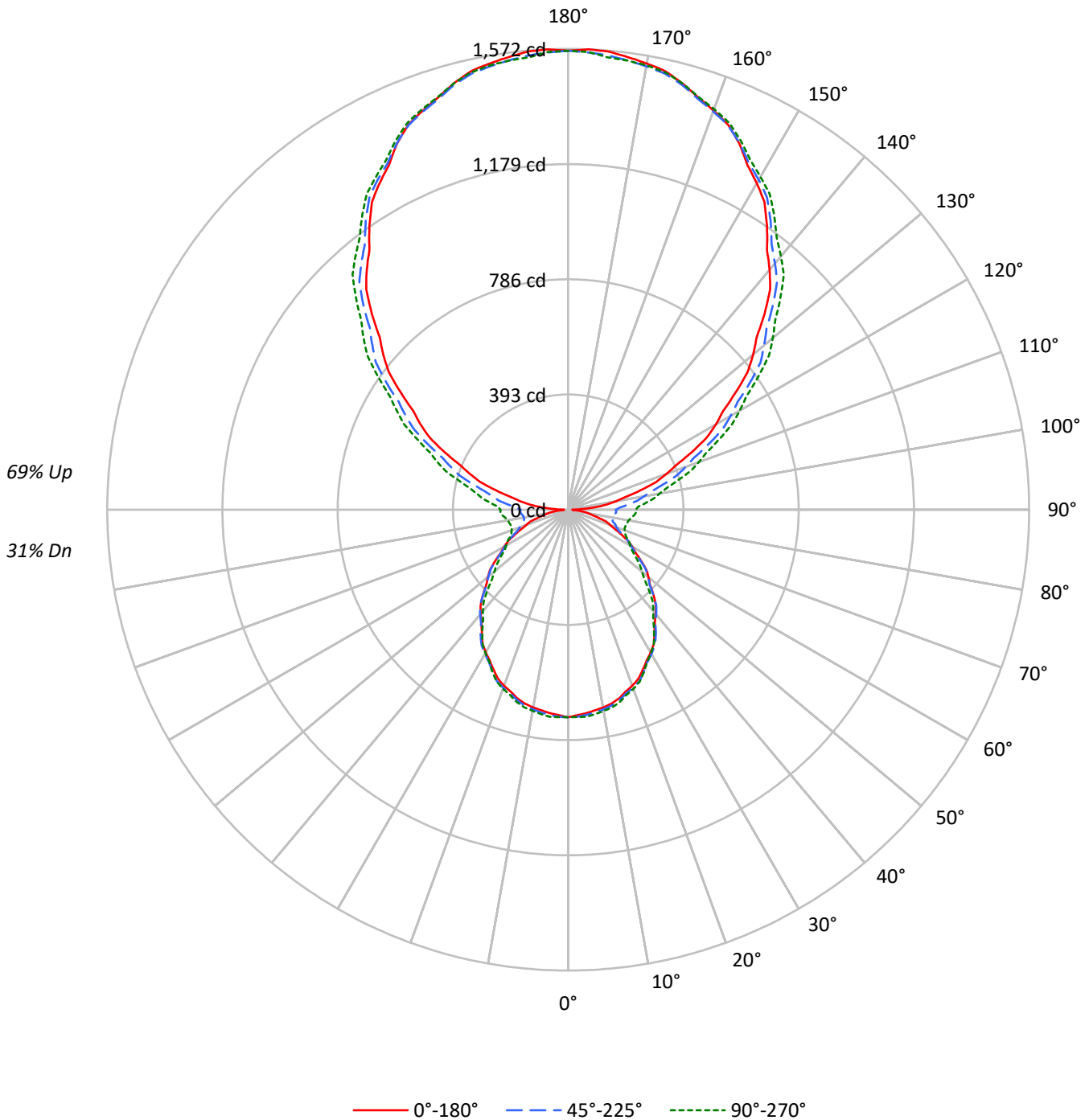
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 6448.4 lumens
Efficiency: N/A
Efficacy: 122.8 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-Indirect

Input Watts (W): 52.5
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	103	103	103	103	92	92	92	92	73	73	73		55	55	55		38	38	38	31
1	93	88	84	80	83	79	76	73	62	60	58		47	45	44		33	32	31	24
2	84	77	70	65	75	69	64	59	54	51	47		41	38	36		28	27	26	20
3	77	67	60	54	68	61	54	49	48	43	40		36	33	31		25	23	22	17
4	70	59	52	46	63	54	47	42	42	38	34		32	29	26		22	20	19	14
5	64	53	45	39	57	48	41	36	38	33	29		29	25	23		20	18	16	13
6	59	47	39	34	53	43	36	31	34	29	25		26	22	20		18	16	14	11
7	55	43	35	29	49	38	32	27	31	26	22		24	20	17		17	14	13	10
8	51	39	31	26	45	35	28	24	28	23	19		22	18	15		15	13	11	9
9	47	35	28	23	42	32	25	21	26	21	17		20	16	14		14	12	10	8
10	44	32	25	20	39	29	23	19	23	19	16		18	15	12		13	11	9	7

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	11431	11431	11431
5°	11215	10093	9780
10°	11068	9002	8448
15°	10906	8062	7390
20°	10656	7233	6463
25°	10323	6442	5632
30°	9997	5726	4889
35°	9554	5055	4196
40°	9141	4399	3557
45°	8663	3783	2968
50°	8157	3236	2435
55°	7622	2714	2048
60°	7111	2260	1762
65°	6482	1907	1578
70°	5877	1639	1489
75°	5139	1519	1496
80°	4294	1529	1579
85°	3131	1676	1748

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 8663 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	66.9	1.0
10°-20°	189.9	2.9
20°-30°	280.5	4.4
30°-40°	323.2	5.0
40°-50°	313.8	4.9
50°-60°	267.0	4.1
60°-70°	210.4	3.3
70°-80°	168.0	2.6
80°-90°	157.6	2.4
90°-100°	208.4	3.2
100°-110°	348.8	5.4
110°-120°	518.9	8.0
120°-130°	672.6	10.4
130°-140°	761.5	11.8
140°-150°	752.5	11.7
150°-160°	636.5	9.9
160°-170°	423.8	6.6
170°-180°	148.2	2.3
0°-30°	537.3	8.3
0°-40°	860.4	13.3
0°-60°	1441.2	22.3
0°-90°	1977.2	30.7
90°-120°	1076.2	16.7
90°-150°	3262.8	50.6
90°-180°	4471.0	69.3
0°-180°	6448.4	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	708	708	708	708	708	
5°	697	710	703	704	709	66
15°	667	680	673	674	679	188
25°	602	615	610	607	611	277
35°	513	526	521	511	511	321
45°	411	420	410	396	390	317
55°	303	313	299	283	281	272
65°	200	211	208	215	218	199
75°	108	121	158	192	203	115
85°	33	79	161	211	225	35
90°	15	75	162	214	231	12
95°	85	118	206	254	265	86
105°	254	271	336	380	387	271
115°	464	486	527	559	567	461
125°	697	723	757	784	791	625
135°	947	968	987	1012	1024	730
145°	1182	1196	1203	1212	1225	738
155°	1379	1387	1381	1383	1391	633
165°	1506	1512	1501	1496	1506	424
175°	1569	1575	1555	1549	1549	149
180°	1565	1565	1565	1565	1565	

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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	708.0	708.0	708.0	708.0	708.0
2.5°	701.6	711.8	706.9	707.2	708.0
5°	697.0	709.7	703.0	704.1	709.0
7.5°	690.6	703.6	698.1	697.7	703.4
10°	685.0	696.7	691.7	692.1	697.0
12.5°	677.8	691.3	683.9	685.7	690.6
15°	667.0	680.0	672.7	674.1	679.0
17.5°	651.0	663.2	657.1	657.1	662.0
20°	639.0	650.4	646.7	645.1	650.0
22.5°	624.6	636.8	633.9	629.9	635.6
25°	602.0	615.0	610.0	607.1	611.0
27.5°	579.6	592.7	585.4	580.5	583.4
30°	562.0	574.0	568.3	562.1	565.0
32.5°	542.8	556.1	549.1	542.0	543.4
35°	513.0	525.7	521.0	511.0	511.0
37.5°	484.8	496.4	488.3	478.2	476.0
40°	464.0	476.4	466.7	454.9	452.0
42.5°	442.4	454.8	445.6	431.7	427.2
45°	411.0	419.8	409.7	395.9	390.0
47.5°	378.6	388.9	375.5	359.8	352.8
50°	357.0	366.8	355.0	335.8	328.0
52.5°	336.2	345.7	332.1	313.2	307.5
55°	303.0	313.4	299.3	282.9	280.6
57.5°	272.0	282.2	268.1	260.5	257.2
60°	252.0	261.4	248.6	245.6	243.6
62.5°	229.6	240.3	229.7	233.1	233.7
65°	200.0	210.7	207.6	215.3	218.5
67.5°	172.2	181.9	186.7	203.7	209.9
70°	153.0	162.7	175.2	197.3	204.8
72.5°	135.4	145.7	168.6	194.4	202.6
75°	108.0	121.0	158.2	192.0	203.0
77.5°	84.0	100.0	153.8	193.6	205.9
80°	68.0	90.7	153.8	196.0	209.6
82.5°	53.6	83.1	154.8	201.8	215.4
85°	33.0	78.8	161.4	210.6	225.2
87.5°	17.3	77.0	164.2	214.6	231.1
90°	14.6	75.1	162.3	213.6	230.8
92.5°	40.4	87.9	177.2	227.0	239.8
95°	84.8	117.9	205.5	254.2	265.0
97.5°	130.0	155.4	238.2	284.1	294.4
100°	163.2	184.0	262.9	308.0	316.5
102.5°	199.6	216.5	291.6	334.1	344.4
105°	254.3	271.2	335.7	379.7	386.6
107.5°	314.9	332.6	388.0	430.2	438.0
110°	355.3	376.4	425.8	464.5	473.6



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	399.2	420.3	464.3	501.5	510.6
115°	464.0	486.1	527.1	558.9	567.0
117.5°	531.9	554.5	592.1	622.5	630.3
120°	581.6	602.4	639.1	668.2	674.7
122.5°	625.5	649.4	685.7	714.7	721.2
125°	697.0	722.6	757.1	784.5	791.0
127.5°	770.5	794.8	826.6	854.3	862.8
130°	822.9	844.0	871.8	900.9	910.7
132.5°	871.8	893.0	917.5	946.1	957.2
135°	947.2	968.3	987.1	1012.3	1023.7
137.5°	1019.3	1039.8	1054.2	1074.2	1088.5
140°	1068.5	1086.4	1096.8	1115.3	1128.3
142.5°	1113.7	1131.6	1139.3	1155.2	1168.2
145°	1181.5	1196.1	1203.1	1211.7	1224.7
147.5°	1245.0	1259.3	1262.3	1269.8	1277.9
150°	1286.2	1299.2	1299.5	1303.0	1311.1
152.5°	1324.8	1336.5	1332.7	1335.0	1344.4
155°	1379.3	1387.4	1380.9	1382.8	1390.9
157.5°	1422.5	1430.6	1420.5	1423.6	1430.1
160°	1449.1	1457.2	1445.7	1447.6	1454.1
162.5°	1474.3	1479.8	1469.7	1467.6	1476.7
165°	1505.6	1512.1	1500.6	1495.8	1505.6
167.5°	1532.2	1538.7	1523.5	1518.4	1528.2
170°	1545.4	1551.9	1535.5	1529.1	1538.8
172.5°	1557.4	1563.9	1546.1	1538.3	1545.4
175°	1568.7	1575.2	1555.4	1548.8	1548.8
177.5°	1572.0	1575.9	1561.4	1554.9	1562.7
180°	1565.4	1565.4	1565.4	1565.4	1565.4

(END OF REPORT)