

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: P644295

Luminaire Tested: CRQ4DIP-SR4F0-125D50U840-FLLFLL-1DUDD-WW

Issue Date: 2/20/2023



Test Information

Test Method: LM-79-2019
Report Number: P644295
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-SR4F0-125D50U840-FLLFLL-1DUDD-WW
Description: NEO-RAY CIRQUE SUSPENDED LED LUMINAIRE
DOWNLIGHT - CURVED FROSTED LENS - 1250 LUMENS PER FOOT
UPLIGHT - CURVED FROSTED LENS - 500 LUMENS PER FOOT
Light Source: 4000K CCT, 80 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

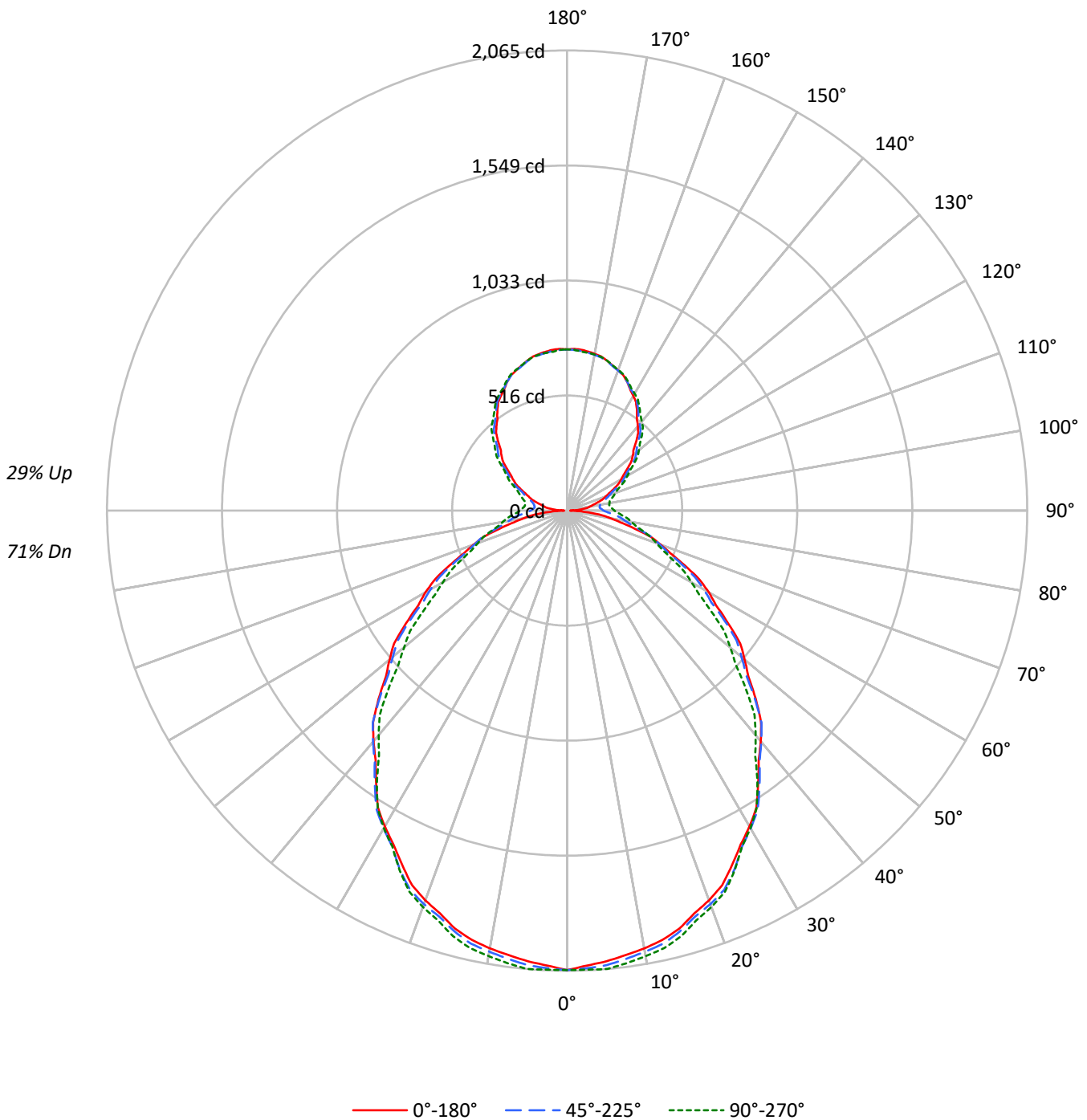
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 7452.4 lumens
Efficiency: N/A
Efficacy: 136.5 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): 54.6
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	112	112	112	112	106	106	106	106	95	95	95	85	85	85	76	76	76	71
1	102	97	93	89	96	92	88	85	83	80	77	74	72	70	66	64	63	59
2	93	85	78	73	88	81	75	70	73	68	64	65	61	58	58	55	53	49
3	85	75	67	61	80	71	64	59	64	58	54	58	53	49	52	48	45	42
4	78	66	58	52	73	63	56	50	57	51	46	51	47	43	46	42	39	36
5	72	59	51	45	67	57	49	43	51	45	40	46	41	37	42	38	34	31
6	66	53	45	39	62	51	43	38	46	40	35	42	37	33	38	34	30	28
7	61	48	40	34	58	46	39	33	42	36	31	38	33	29	35	30	27	25
8	57	44	36	31	54	42	35	30	39	32	28	35	30	26	32	28	24	22
9	53	40	33	27	50	39	32	27	36	29	25	32	27	23	30	25	22	20
10	50	37	30	25	47	36	29	24	33	27	23	30	25	21	27	23	20	18

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	33293	33293	33293
5°	32663	29395	28483
10°	32234	26163	24605
15°	31762	23430	21521
20°	31034	21020	18824
25°	30067	18762	16404
30°	29115	16594	14238
35°	27826	14603	12221
40°	26622	12773	10360
45°	25229	10978	8646
50°	23756	9313	7092
55°	22200	7832	5758
60°	20710	6436	4661
65°	18880	5181	3773
70°	17117	4126	3092
75°	14965	3289	2588
80°	12502	2630	2207
85°	9118	2174	1930

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 25229 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	194.7	2.6
10°-20°	552.4	7.4
20°-30°	815.5	10.9
30°-40°	938.0	12.6
40°-50°	910.0	12.2
50°-60°	763.8	10.2
60°-70°	558.6	7.5
70°-80°	359.6	4.8
80°-90°	209.8	2.8
90°-100°	150.5	2.0
100°-110°	180.8	2.4
110°-120°	246.7	3.3
120°-130°	313.7	4.2
130°-140°	352.3	4.7
140°-150°	347.7	4.7
150°-160°	294.1	3.9
160°-170°	195.8	2.6
170°-180°	68.5	0.9
0°-30°	1562.6	21.0
0°-40°	2500.6	33.6
0°-60°	4174.4	56.0
0°-90°	5302.3	71.1
90°-120°	578.0	7.8
90°-150°	1591.7	21.4
90°-180°	2150.0	28.8
0°-180°	7452.4	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2062	2062	2062	2062	2062	
5°	2030	2067	2047	2051	2065	193
15°	1943	1973	1955	1963	1978	546
25°	1753	1783	1777	1768	1780	808
35°	1494	1519	1505	1488	1488	936
45°	1197	1211	1189	1153	1136	923
55°	882	897	864	811	789	791
65°	582	590	564	533	522	579
75°	314	321	343	351	351	336
85°	96	134	209	242	249	102
90°	14	83	163	202	212	15
95°	64	77	146	186	194	61
105°	142	135	167	198	206	151
115°	232	232	248	263	267	230
125°	332	339	352	362	366	297
135°	438	448	456	468	473	338
145°	546	553	556	560	566	341
155°	637	641	638	639	643	293
165°	696	699	694	691	696	196
175°	725	728	719	716	716	69
180°	723	723	723	723	723	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2062.0	2062.0	2062.0	2062.0	2062.0
2.5°	2043.4	2073.0	2055.6	2059.7	2062.0
5°	2030.0	2067.0	2047.4	2050.7	2064.9
7.5°	2011.3	2046.1	2029.0	2032.1	2048.6
10°	1995.0	2029.2	2010.3	2015.7	2030.0
12.5°	1974.0	2007.1	1991.1	1997.1	2011.3
15°	1942.6	1972.6	1955.0	1963.3	1977.5
17.5°	1896.0	1927.5	1909.6	1913.8	1928.0
20°	1861.0	1890.3	1879.3	1878.8	1893.1
22.5°	1819.1	1850.6	1842.0	1834.6	1851.1
25°	1753.3	1783.3	1776.6	1768.1	1779.5
27.5°	1688.0	1711.8	1700.0	1690.6	1699.1
30°	1636.8	1663.9	1647.1	1637.0	1645.5
32.5°	1580.9	1608.6	1591.1	1578.6	1582.6
35°	1494.1	1519.1	1505.1	1488.3	1488.3
37.5°	1411.9	1429.8	1418.0	1392.6	1386.3
40°	1351.4	1371.5	1355.1	1325.0	1316.4
42.5°	1288.5	1308.6	1290.4	1257.3	1244.2
45°	1197.0	1210.7	1189.0	1152.9	1135.9
47.5°	1102.6	1117.5	1088.0	1048.0	1027.5
50°	1039.7	1056.2	1021.7	978.1	955.3
52.5°	979.2	991.7	958.1	908.8	888.9
55°	882.5	896.9	863.6	811.4	788.8
57.5°	792.2	806.0	767.8	721.8	703.5
60°	733.9	745.5	707.9	662.0	644.3
62.5°	668.7	680.8	646.2	609.1	592.7
65°	582.5	589.8	564.0	532.9	522.4
67.5°	501.5	506.0	487.7	469.8	463.1
70°	445.6	450.1	441.2	431.6	425.4
72.5°	394.3	397.2	398.9	396.9	393.1
75°	314.5	320.6	342.6	350.8	351.1
77.5°	244.6	248.2	294.1	311.4	314.7
80°	198.0	208.6	264.6	289.0	292.9
82.5°	156.1	173.6	241.6	270.1	274.0
85°	96.1	134.1	209.3	241.9	248.6
87.5°	44.8	101.6	181.7	217.8	225.9
90°	14.1	82.8	163.2	201.7	212.0
92.5°	33.9	77.4	154.4	192.2	202.5
95°	63.7	76.6	146.4	186.2	193.5
97.5°	89.5	86.4	147.3	182.8	190.4
100°	104.8	97.7	150.9	184.1	192.8
102.5°	119.7	110.7	156.3	188.3	195.9
105°	142.0	135.4	167.4	197.6	205.6
107.5°	167.1	161.4	186.2	212.6	218.6
110°	183.8	181.6	201.6	224.5	231.1



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	204.1	201.8	219.5	237.7	244.3
115°	231.6	232.2	248.5	263.2	266.9
117.5°	260.0	263.8	278.0	289.6	293.2
120°	281.0	285.9	297.8	308.8	311.8
122.5°	301.3	305.7	319.3	330.3	333.3
125°	331.9	339.0	352.3	362.5	365.5
127.5°	362.9	372.2	384.4	394.8	398.7
130°	385.2	394.9	405.3	416.3	420.8
132.5°	403.9	413.6	424.5	437.2	442.3
135°	437.7	447.5	456.2	467.8	473.1
137.5°	471.1	480.5	487.2	496.4	503.0
140°	493.8	502.0	506.8	515.4	521.4
142.5°	514.7	522.9	526.5	533.9	539.9
145°	546.0	552.8	556.0	560.0	566.0
147.5°	575.3	581.9	583.3	586.8	590.5
150°	594.4	600.4	600.5	602.2	605.9
152.5°	612.2	617.6	615.9	616.9	621.3
155°	637.4	641.1	638.2	639.0	642.8
157.5°	657.4	661.1	656.4	657.9	660.9
160°	669.6	673.4	668.1	668.9	671.9
162.5°	681.3	683.9	679.2	678.2	682.4
165°	695.8	698.8	693.5	691.2	695.8
167.5°	708.0	711.0	704.0	701.7	706.2
170°	714.2	717.2	709.6	706.6	711.1
172.5°	719.7	722.7	714.5	710.9	714.2
175°	724.9	727.9	718.8	715.7	715.7
177.5°	726.5	728.3	721.6	718.6	722.2
180°	723.4	723.4	723.4	723.4	723.4

(END OF REPORT)