

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: P644307

Luminaire Tested: CRQ4DIP-SR4F0-125D75U840-FLLFLL-1DUDD-WW

Issue Date: 2/20/2023



Test Information

Test Method: LM-79-2019
Report Number: P644307
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-SR4F0-125D75U840-FLLFLL-1DUDD-WW
Description: NEO-RAY CIRQUE SUSPENDED LED LUMINAIRE
DOWNLIGHT - CURVED FROSTED LENS - 1250 LUMENS PER FOOT
UPLIGHT - CURVED FROSTED LENS - 750 LUMENS PER FOOT
Light Source: 4000K CCT, 80 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

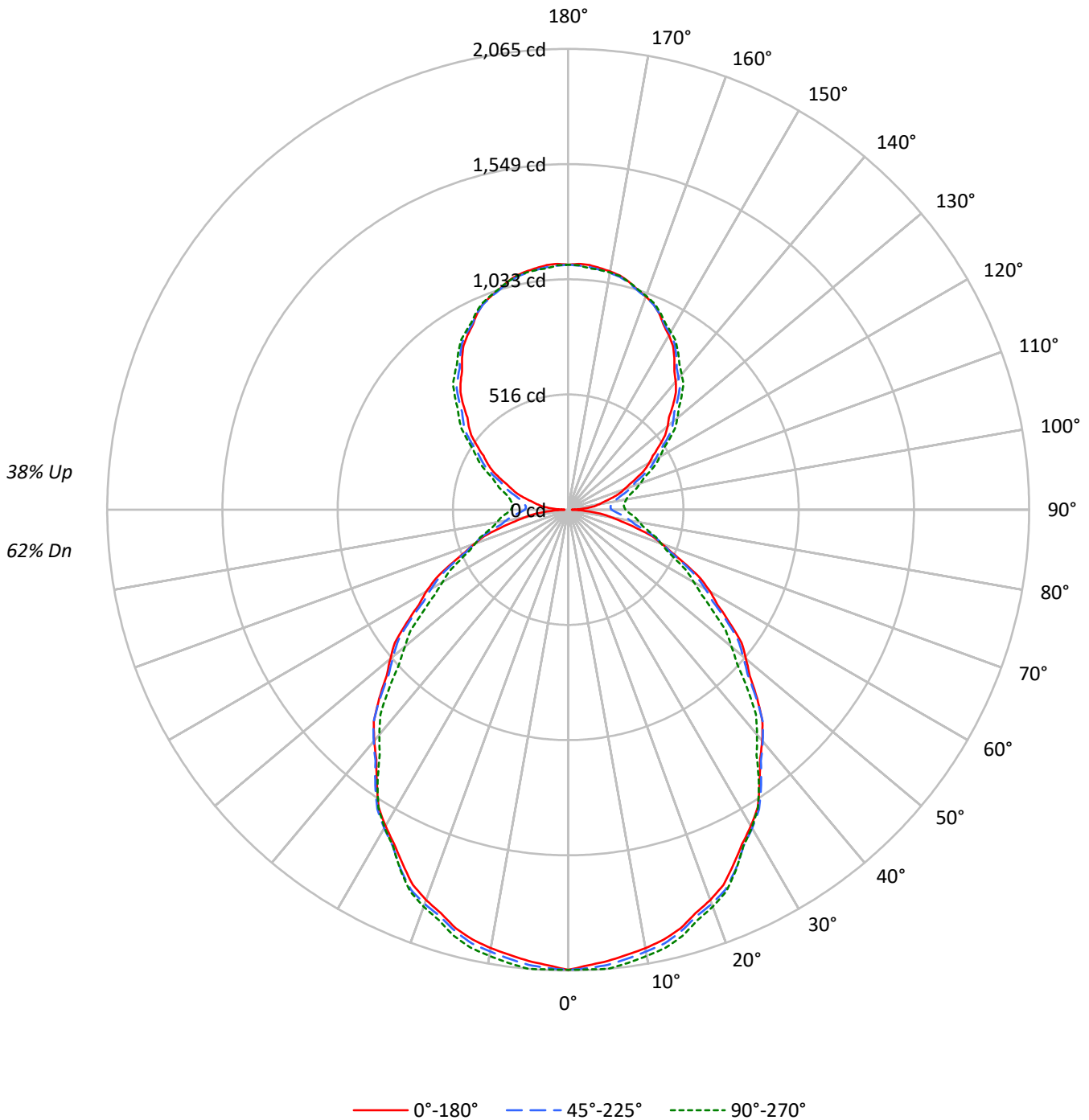
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 8558.2 lumens
Efficiency: N/A
Efficacy: 140.8 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-Direct

Input Watts (W): 60.8
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: P644307
CATALOG NUMBER: CRQ4DIP-SR4F0-125D75U840-FLLFLL-1DUDD-WW

Luminous Intensity Polar Plot





TEST NUMBER: P644307

CATALOG NUMBER: CRQ4DIP-SR4F0-125D75U840-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	110	110	110	110	103	103	103	103	90	90	90	78	78	78	68	68	68	62																				
1	100	95	91	87	93	89	86	82	78	76	73	68	66	64	59	57	56	51																				
2	91	83	77	71	85	78	72	68	69	64	60	60	56	54	52	49	47	43																				
3	83	73	66	59	78	69	62	57	61	55	51	53	49	45	46	43	40	36																				
4	76	65	57	50	71	61	54	48	54	48	43	47	43	39	41	38	35	31																				
5	70	58	50	43	65	55	47	41	48	42	38	43	38	34	37	33	30	27																				
6	65	52	44	38	60	49	42	36	44	38	33	39	34	30	34	30	27	24																				
7	60	47	39	33	56	45	37	32	40	34	29	35	30	26	31	27	24	21																				
8	56	43	35	30	52	41	33	28	36	30	26	32	27	24	28	24	21	19																				
9	52	39	32	26	49	37	30	25	33	28	23	30	25	21	26	22	19	17																				
10	48	36	29	24	45	34	28	23	31	25	21	28	23	19	24	20	18	16																				

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	33293	33293	33293
5°	32663	29395	28483
10°	32234	26168	24605
15°	31762	23435	21521
20°	31034	21024	18824
25°	30067	18762	16404
30°	29115	16602	14238
35°	27826	14615	12221
40°	26622	12776	10360
45°	25229	10981	8646
50°	23756	9323	7092
55°	22200	7839	5778
60°	20710	6451	4706
65°	18880	5217	3854
70°	17117	4189	3213
75°	14965	3401	2761
80°	12502	2808	2440
85°	9118	2438	2239

MAXIMUM LUMINANCE 45°-90°:

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



TEST NUMBER: P644307

CATALOG NUMBER: CRQ4DIP-SR4F0-125D75U840-FLLFLL-1DUDD-WW

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	194.7	2.3
10°-20°	552.5	6.5
20°-30°	815.7	9.5
30°-40°	938.3	11.0
40°-50°	910.4	10.6
50°-60°	765.1	8.9
60°-70°	563.9	6.6
70°-80°	372.2	4.3
80°-90°	234.1	2.7
90°-100°	195.1	2.3
100°-110°	262.4	3.1
110°-120°	370.1	4.3
120°-130°	474.3	5.5
130°-140°	534.4	6.2
140°-150°	527.7	6.2
150°-160°	446.4	5.2
160°-170°	297.2	3.5
170°-180°	103.9	1.2
0°-30°	1562.8	18.3
0°-40°	2501.1	29.2
0°-60°	4176.6	48.8
0°-90°	5346.8	62.5
90°-120°	827.6	9.7
90°-150°	2363.9	27.6
90°-180°	3211.0	37.5
0°-180°	8558.2	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	1784	1777	1768	1780	808
35°	1494	1520	1506	1488	1488	936
45°	1197	1212	1189	1153	1136	923
55°	882	898	864	813	792	791
65°	582	592	568	542	534	579
75°	314	324	354	371	375	336
85°	96	143	235	278	288	102
90°	17	96	193	243	257	17
95°	82	103	190	240	250	79
105°	200	199	246	286	295	214
115°	341	348	374	396	402	338
125°	498	511	533	550	555	446
135°	664	679	692	710	718	512
145°	829	839	844	850	859	518
155°	967	973	968	970	975	444
165°	1056	1060	1052	1049	1056	298
175°	1100	1105	1091	1086	1086	104
180°	1098	1098	1098	1098	1098	



TEST NUMBER: P644307

CATALOG NUMBER: CRQ4DIP-SR4F0-125D75U840-FLLFLL-1DUDD-WW

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	2055.9	2059.7	2062.0
5°	2030.0	2067.0	2047.4	2050.7	2064.9
7.5°	2011.3	2046.4	2029.4	2032.1	2048.6
10°	1995.0	2029.2	2010.7	2015.7	2030.0
12.5°	1974.0	2007.8	1991.2	1997.1	2011.3
15°	1942.6	1973.4	1955.4	1963.3	1977.5
17.5°	1896.0	1927.9	1910.0	1913.8	1928.0
20°	1861.0	1890.7	1879.7	1878.8	1893.1
22.5°	1819.1	1851.0	1842.4	1834.6	1851.1
25°	1753.3	1784.0	1776.6	1768.1	1779.5
27.5°	1688.0	1713.2	1700.5	1690.6	1699.1
30°	1636.8	1664.7	1647.9	1637.0	1645.5
32.5°	1580.9	1609.7	1591.9	1578.6	1582.6
35°	1494.1	1520.3	1506.3	1488.3	1488.3
37.5°	1411.9	1431.3	1418.4	1392.6	1386.3
40°	1351.4	1373.0	1355.4	1325.0	1316.4
42.5°	1288.5	1310.1	1291.1	1257.3	1244.2
45°	1197.0	1211.8	1189.4	1152.9	1135.9
47.5°	1102.6	1118.9	1088.6	1048.0	1027.5
50°	1039.7	1057.4	1022.8	978.1	955.3
52.5°	979.2	993.2	959.0	909.2	889.6
55°	882.5	898.4	864.4	812.7	791.6
57.5°	792.2	807.6	769.1	725.4	708.0
60°	733.9	747.0	709.5	667.2	650.6
62.5°	668.7	682.7	648.4	615.9	601.3
65°	582.5	592.2	567.9	542.1	533.6
67.5°	501.5	508.4	493.1	481.9	477.5
70°	445.6	452.4	447.9	445.5	442.1
72.5°	394.3	399.8	407.9	413.4	412.3
75°	314.5	323.7	354.2	371.1	374.6
77.5°	244.6	252.4	309.1	336.0	342.5
80°	198.0	214.0	282.5	316.5	323.9
82.5°	156.1	180.3	262.0	301.1	308.5
85°	96.1	143.4	234.8	278.1	288.4
87.5°	45.3	113.6	210.7	257.5	269.5
90°	16.9	96.1	193.4	242.7	256.9
92.5°	42.1	94.8	189.7	238.0	250.9
95°	81.6	102.6	190.5	240.3	249.9
97.5°	117.7	122.1	200.7	245.8	255.5
100°	141.0	140.4	210.9	253.7	263.9
102.5°	164.8	161.5	224.0	264.9	274.7
105°	200.4	199.3	246.5	286.3	295.4
107.5°	240.3	240.2	278.3	314.1	321.8
110°	266.9	270.9	303.0	334.7	343.2



TEST NUMBER: P644307

CATALOG NUMBER: CRQ4DIP-SR4F0-125D75U840-FLLFLL-1DUDD-WW

CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	297.6	301.6	330.0	357.0	365.6
115°	340.9	347.7	374.1	396.4	402.1
117.5°	385.9	395.7	419.2	438.3	443.8
120°	419.0	429.2	450.4	468.6	473.2
122.5°	449.7	460.4	483.1	501.2	505.8
125°	497.6	511.3	533.2	550.2	554.7
127.5°	546.6	561.8	581.9	599.2	605.1
130°	581.5	596.3	613.6	631.8	638.6
132.5°	612.3	627.1	643.9	663.5	671.3
135°	664.3	679.1	692.2	709.9	717.9
137.5°	714.9	729.2	739.3	753.3	763.3
140°	749.4	761.9	769.2	782.2	791.3
142.5°	781.1	793.6	799.0	810.2	819.3
145°	828.6	838.9	843.7	849.8	858.9
147.5°	873.1	883.1	885.2	890.5	896.2
150°	902.0	911.1	911.3	913.8	919.5
152.5°	929.1	937.3	934.7	936.2	942.8
155°	967.3	973.0	968.4	969.7	975.4
157.5°	997.6	1003.3	996.2	998.4	1002.9
160°	1016.2	1021.9	1013.9	1015.2	1019.7
162.5°	1033.9	1037.8	1030.7	1029.2	1035.6
165°	1055.9	1060.4	1052.4	1049.0	1055.9
167.5°	1074.5	1079.1	1068.4	1064.9	1071.7
170°	1083.8	1088.4	1076.8	1072.3	1079.2
172.5°	1092.2	1096.8	1084.3	1078.8	1083.8
175°	1100.1	1104.7	1090.8	1086.2	1086.2
177.5°	1102.5	1105.2	1095.0	1090.5	1095.9
180°	1097.8	1097.8	1097.8	1097.8	1097.8

(END OF REPORT)