

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: P644256

Luminaire Tested: CRQ4DIP-SR4F0-125D125U830-FLLOOB-1DUDD-WW

Issue Date: 2/20/2023



Test Information

Test Method: LM-79-2019
Report Number: P644256
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2203-563-26, G2-2206-689-14)
Test Lab: INNOVATION CENTER
Issue Date: 2/20/2023
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: NEO-RAY
Catalog Number: CRQ4DIP-SR4F0-125D125U830-FLLOOB-1DUDD-WW
Description: NEO-RAY CIRQUE SUSPENDED LED LUMINAIRE
DOWNLIGHT - CURVED FROSTED LENS - 1250 LUMENS PER FOOT
UPLIGHT - BATWING OPTIC - 1250 LUMENS PER FOOT
Light Source: 3000K CCT, 80 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

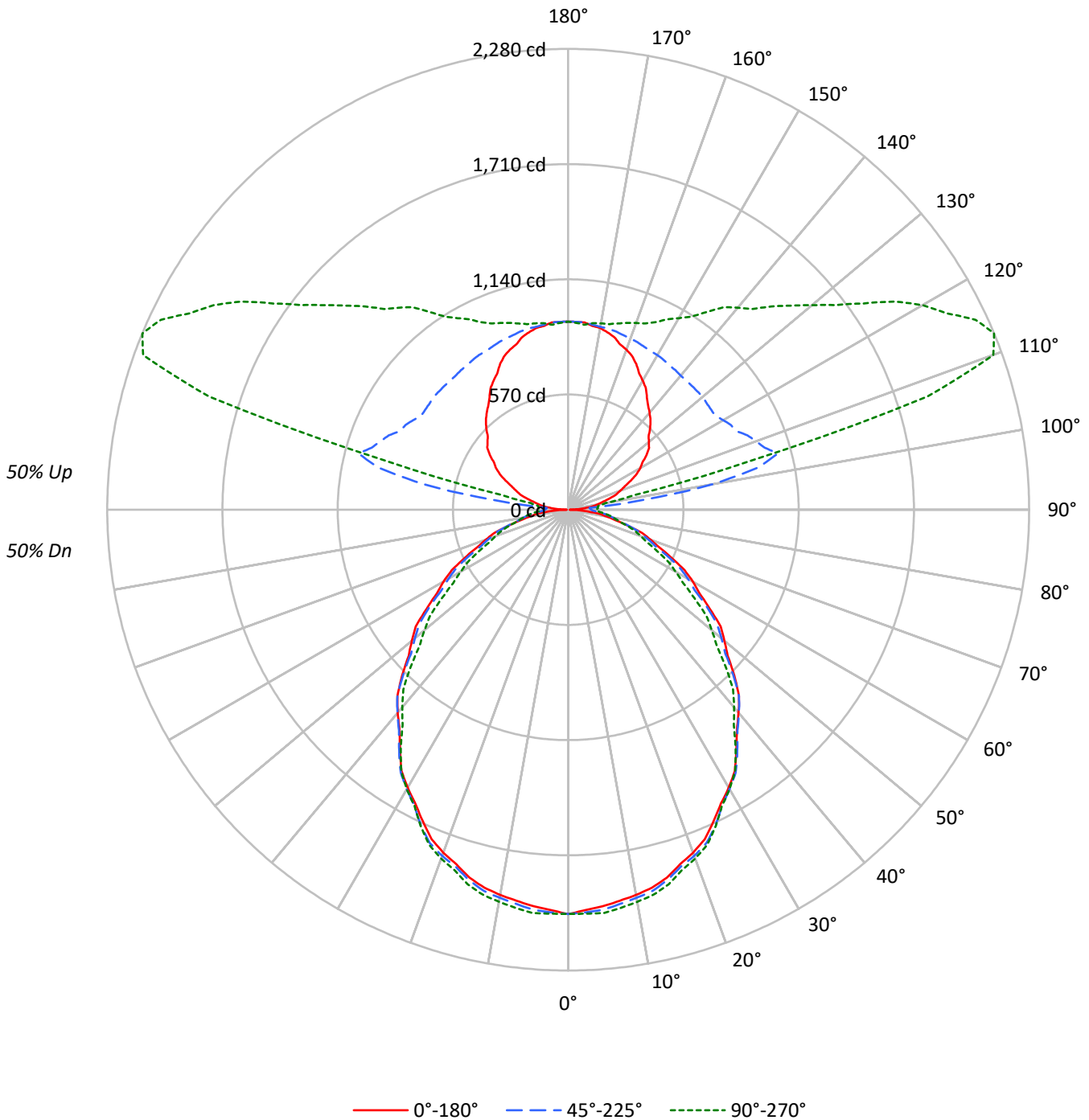
Lumens per Lamp: N/A
Luminaire Lumens: 10156.4 lumens
Efficiency: N/A
Efficacy: 129.9 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 1.19 / 1.3
Luminous Opening: Rectangular w/ Sides (W: 0.17' x L: 4' x H: 0.33')
CIE Type: General Diffuse

Input Watts (W): 78.2
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										
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	107	107	107	107	99	99	99	99	83	83	83	69	69	69	56	56	56	50																				
1	98	93	89	86	90	86	83	80	73	70	68	60	59	57	49	48	47	42																				
2	89	81	75	70	82	75	70	65	64	60	56	53	50	48	43	41	40	35																				
3	81	72	64	58	75	66	60	55	56	51	47	47	44	41	39	36	34	30																				
4	74	63	56	50	68	59	52	46	50	45	41	42	38	35	34	32	29	26																				
5	68	57	48	42	63	53	45	40	45	39	35	38	34	30	31	28	26	22																				
6	63	51	43	37	58	47	40	35	40	35	31	34	30	27	28	25	23	20																				
7	58	46	38	32	54	43	36	31	37	31	27	31	27	24	26	23	20	17																				
8	54	42	34	29	50	39	32	27	34	28	24	29	24	21	24	20	18	16																				
9	50	38	31	26	46	36	29	24	31	25	22	26	22	19	22	19	16	14																				
10	47	35	28	23	43	33	26	22	28	23	19	24	20	17	20	17	15	13																				

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	32300	32300	32300
5°	31688	28519	27633
10°	31273	25373	23870
15°	30815	22723	20880
20°	30109	20385	18263
25°	29170	18202	15914
30°	28247	16083	13813
35°	26995	14146	11856
40°	25828	12384	10051
45°	24477	10643	8388
50°	23048	9015	6880
55°	21536	7585	5548
60°	20092	6217	4435
65°	18316	4957	3511
70°	16606	3885	2773
75°	14523	2984	2187
80°	12129	2219	1703
85°	8843	1614	1294

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 24477 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	188.8	1.9
10°-20°	535.8	5.3
20°-30°	791.0	7.8
30°-40°	909.4	9.0
40°-50°	882.2	8.7
50°-60°	738.5	7.3
60°-70°	532.0	5.2
70°-80°	325.1	3.2
80°-90°	160.0	1.6
90°-100°	176.9	1.7
100°-110°	837.6	8.2
110°-120°	1114.3	11.0
120°-130°	903.8	8.9
130°-140°	724.7	7.1
140°-150°	571.0	5.6
150°-160°	417.5	4.1
160°-170°	259.3	2.6
170°-180°	88.4	0.9
0°-30°	1515.6	14.9
0°-40°	2425.0	23.9
0°-60°	4045.6	39.8
0°-90°	5062.8	49.8
90°-120°	2128.9	21.0
90°-150°	4328.3	42.6
90°-180°	5094.0	50.2
0°-180°	10156.4	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2000	2000	2000	2000	2000	
5°	1969	2005	1986	1990	2003	187
15°	1885	1912	1896	1905	1919	530
25°	1701	1729	1724	1715	1726	784
35°	1450	1472	1458	1444	1444	908
45°	1161	1172	1153	1119	1102	895
55°	856	867	836	785	760	768
65°	565	568	540	500	486	562
75°	305	305	311	302	297	326
85°	93	113	155	167	167	98
90°	8	61	113	136	139	12
95°	75	112	106	132	146	76
105°	210	290	1073	1378	926	221
115°	342	399	918	1903	2223	339
125°	474	531	863	1504	1778	420
135°	573	636	866	1239	1422	442
145°	679	736	872	1079	1194	426
155°	796	824	889	978	1024	365
165°	883	895	913	936	954	248
175°	930	936	930	924	918	88
180°	930	930	930	930	930	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2000.5	2000.5	2000.5	2000.5	2000.5
2.5°	1982.4	2011.2	1993.7	1998.3	2000.5
5°	1969.4	2005.3	1986.4	1989.5	2003.3
7.5°	1951.3	1984.5	1967.7	1971.5	1987.5
10°	1935.5	1968.7	1949.6	1955.6	1969.4
12.5°	1915.2	1946.1	1931.6	1937.5	1951.3
15°	1884.7	1912.3	1896.0	1904.8	1918.6
17.5°	1839.4	1869.3	1851.9	1856.7	1870.5
20°	1805.5	1833.2	1822.5	1822.8	1836.6
22.5°	1764.9	1794.7	1786.3	1779.9	1795.9
25°	1701.0	1728.6	1723.6	1715.4	1726.4
27.5°	1637.7	1658.1	1648.4	1640.2	1648.4
30°	1588.0	1612.8	1596.4	1588.2	1596.4
32.5°	1533.7	1558.6	1542.2	1531.5	1535.4
35°	1449.5	1471.6	1458.0	1443.9	1443.9
37.5°	1369.8	1384.2	1374.9	1351.1	1345.0
40°	1311.1	1327.6	1313.9	1285.4	1277.2
42.5°	1250.0	1266.6	1250.6	1219.8	1207.1
45°	1161.3	1172.4	1152.8	1118.6	1102.0
47.5°	1069.8	1081.4	1054.5	1016.8	996.9
50°	1008.7	1022.5	989.0	948.9	926.8
52.5°	950.0	959.4	927.9	881.1	861.2
55°	856.1	867.2	836.4	784.9	760.1
57.5°	768.6	779.1	742.6	693.5	674.2
60°	712.0	720.3	683.8	632.5	613.1
62.5°	648.8	657.0	622.8	578.2	558.9
65°	565.1	567.9	539.7	499.8	486.0
67.5°	486.6	486.6	462.8	433.2	422.1
70°	432.3	432.3	415.4	392.5	381.5
72.5°	382.6	380.4	370.2	354.1	345.3
75°	305.2	305.2	310.8	302.2	296.7
77.5°	237.3	232.9	257.1	255.9	253.2
80°	192.1	192.1	223.2	228.8	226.0
82.5°	151.5	155.9	196.1	203.9	201.2
85°	93.2	112.6	155.4	166.7	166.7
87.5°	42.4	77.2	124.4	140.3	140.8
90°	8.5	61.2	113.4	136.3	139.1
92.5°	31.6	62.1	109.4	137.1	146.6
95°	75.1	112.3	106.1	132.1	146.3
97.5°	117.0	183.4	387.0	160.9	150.5
100°	145.1	223.0	724.3	251.4	188.2
102.5°	170.9	253.4	958.6	575.3	336.1
105°	209.6	290.3	1073.1	1378.3	926.2
107.5°	248.4	305.5	1018.9	1984.6	1862.7
110°	274.2	329.0	988.5	2080.1	2237.3



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	302.3	357.1	960.4	2017.1	2279.6
115°	341.6	399.1	918.3	1902.6	2223.0
117.5°	381.5	441.2	907.2	1776.6	2106.1
120°	412.0	469.4	886.2	1681.0	2024.2
122.5°	435.4	495.1	862.8	1600.8	1916.6
125°	473.5	530.9	862.8	1503.9	1778.5
127.5°	504.0	565.9	864.0	1391.5	1662.7
130°	520.5	589.1	868.7	1316.3	1573.8
132.5°	539.4	608.0	866.4	1282.5	1494.2
135°	573.3	636.3	865.9	1238.6	1421.7
137.5°	602.6	670.1	865.9	1190.0	1346.8
140°	626.0	688.9	865.9	1161.6	1304.6
142.5°	649.4	707.7	870.5	1128.7	1262.5
145°	678.6	735.9	871.7	1079.1	1193.5
147.5°	713.8	764.1	878.7	1043.4	1131.5
150°	737.2	782.9	883.4	1019.7	1094.0
152.5°	760.6	801.7	883.4	1000.6	1061.3
155°	795.7	824.3	889.3	978.1	1023.8
157.5°	823.7	851.2	896.3	963.7	996.9
160°	842.5	865.3	901.0	954.3	982.9
162.5°	856.5	879.4	905.6	949.4	968.8
165°	883.4	894.9	912.7	936.5	953.6
167.5°	898.6	908.9	918.5	930.4	940.7
170°	912.7	918.4	918.5	930.3	936.1
172.5°	917.3	927.6	923.2	925.7	931.4
175°	930.2	935.9	930.2	924.2	918.5
177.5°	930.2	934.8	930.2	930.1	925.5
180°	930.2	930.2	930.2	930.2	930.2

(END OF REPORT)