

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: P735898

Luminaire Tested: S122RDR-S1005D830-X4F0-XX-UDD-W-W

Issue Date: 1/24/2024

Test Information

Test Method: LM-79-2019
Report Number: P735898
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2308-143-2)
Test Lab: INNOVATION CENTER
Issue Date: 1/24/2024
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: NEO-RAY
Catalog Number: S122RDR-S1005D830-X4F0-XX-UDD-W-W
Description: DEFINE 2 REGRESSED DIRECT RECESSED WITH WALL WASH OPTIC
Light Source: 3000K CCT, 80 CRI LEDS
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 4050.5 lumens
Efficiency: N/A
Efficacy: 96.9 lumens/watt
Spacing Criteria (0/90/45): 0.82 / 1.11 / 1
Luminous Opening: Rectangular (W 4' x L: 0.14' x H: 0')
CIE Type: Direct

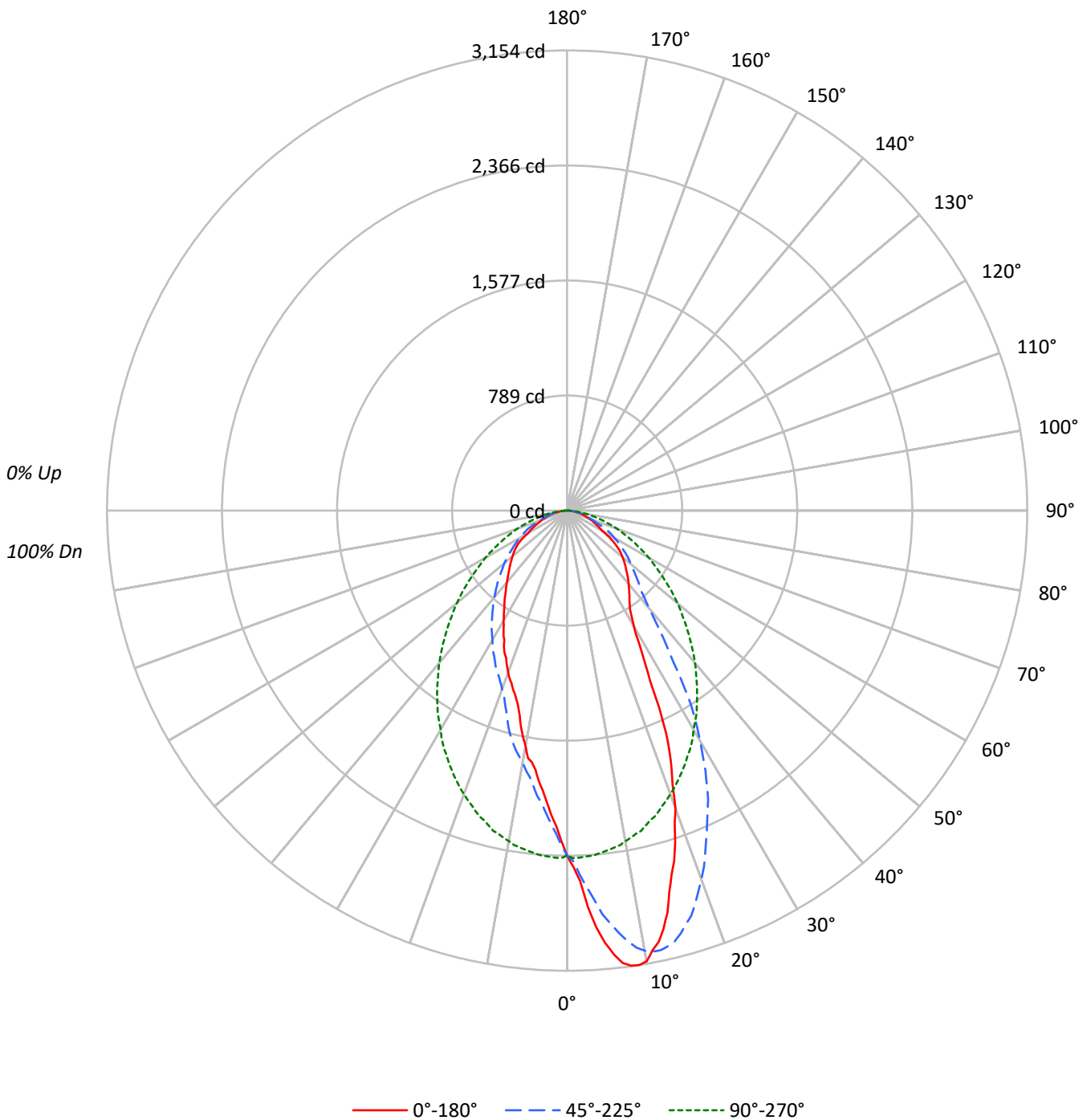
Input Watts (W): 41.8
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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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	50	30	10	50	30	10	0		
RCR																										
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100					100			
1	110	106	103	99	108	104	101	98	100	97	95	96	94	92	92	91	89					87				
2	102	95	89	84	99	93	87	83	89	85	81	86	82	79	83	80	77					75				
3	94	85	78	72	92	83	77	71	80	75	70	78	73	69	75	71	68					66				
4	87	77	69	63	85	75	68	62	73	67	62	71	65	61	69	64	60					58				
5	81	69	61	55	79	68	61	55	66	60	55	64	59	54	63	58	54					52				
6	75	63	55	50	74	63	55	49	61	54	49	59	53	49	58	52	48					46				
7	71	58	50	45	69	57	50	45	56	49	44	55	49	44	53	48	44					42				
8	66	54	46	41	65	53	46	41	52	45	40	51	45	40	50	44	40					38				
9	62	50	42	37	61	49	42	37	48	42	37	47	41	37	46	41	37					35				
10	59	46	39	34	57	46	39	34	45	39	34	44	38	34	43	38	34					32				

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°	135°	180°
0°	45437	45437	45437	45437	45437
5°	57323	53620	45611	38755	37109
10°	61231	59789	44918	34293	32044
15°	53858	59770	43731	30748	26703
20°	44399	55011	42335	26692	24163
25°	31656	48296	40639	24720	21736
30°	20255	40510	38459	22683	19307
35°	17444	29852	36457	21048	17512
40°	16443	21827	34205	19474	16086
45°	15532	18702	31801	18044	15184
50°	14793	17045	29541	16791	14623
55°	13575	15767	27010	15435	14102
60°	10710	14374	24811	14481	11913
65°	9697	12867	22500	13449	10861
70°	8947	10386	20451	11583	9987
75°	8340	9395	17839	10345	9395
80°	7715	8501	15109	9287	8501
85°	6903	7520	11600	8160	7520

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 67.5°
 Vertical Angle: 45°
 Luminance: 44515 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	229.3	5.7
10°-20°	616.0	15.2
20°-30°	772.7	19.1
30°-40°	736.3	18.2
40°-50°	649.5	16.0
50°-60°	510.9	12.6
60°-70°	326.0	8.0
70°-80°	165.7	4.1
80°-90°	44.0	1.1
90°-100°	0.0	0.0
100°-110°	0.0	0.0
110°-120°	0.0	0.0
120°-130°	0.0	0.0
130°-140°	0.0	0.0
140°-150°	0.0	0.0
150°-160°	0.0	0.0
160°-170°	0.0	0.0
170°-180°	0.0	0.0
0°-30°	1618.0	39.9
0°-40°	2354.3	58.1
0°-60°	3514.8	86.8
0°-90°	4050.5	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4050.5	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	2364	2364	2364	2364	2364	
5°	2971	2779	2364	2009	1923	289
15°	2706	3004	2198	1545	1342	750
25°	1493	2277	1916	1166	1025	673
35°	743	1272	1554	897	746	473
45°	571	688	1170	664	559	443
55°	405	470	806	461	421	356
65°	213	283	495	296	239	213
75°	112	126	240	139	126	119
85°	31	34	53	37	34	35
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°
0°	2363.9	2363.9	2363.9	2363.9	2363.9	2363.9	2363.9	2363.9	2363.9
1°	2443.5	2454.9	2402.3	2408.0	2382.4	2336.9	2292.9	2297.1	2265.8
2°	2541.6	2571.5	2499.0	2454.9	2381.0	2301.4	2213.3	2201.9	2163.5
3°	2719.3	2705.1	2585.7	2496.1	2375.3	2255.9	2145.0	2119.4	2086.7
4°	2862.9	2820.2	2673.8	2548.7	2372.5	2203.3	2078.2	2034.1	2001.5
5°	2970.9	2916.9	2779.0	2588.5	2363.9	2173.5	2008.6	1958.8	1923.3
6°	3057.6	3016.4	2847.2	2625.5	2352.6	2129.4	1967.3	1900.5	1863.6
7°	3124.4	3090.3	2916.9	2675.2	2342.6	2085.3	1901.9	1832.3	1788.2
8°	3150.0	3134.4	2980.9	2710.8	2331.2	2054.0	1843.7	1781.1	1741.3
9°	3154.3	3155.7	3032.0	2744.9	2321.3	1997.2	1802.4	1738.5	1717.2
10°	3137.2	3150.0	3063.3	2783.3	2301.4	1968.8	1757.0	1695.8	1641.8
11°	3070.4	3127.3	3078.9	2808.9	2284.3	1923.3	1717.2	1637.6	1583.5
12°	3020.7	3074.7	3080.4	2841.5	2264.4	1901.9	1683.0	1576.4	1519.6
13°	2938.2	2995.1	3066.1	2850.1	2253.1	1849.4	1640.4	1513.9	1444.2
14°	2840.1	2931.1	3043.4	2868.6	2224.6	1803.9	1597.7	1425.7	1384.5
15°	2706.5	2835.9	3003.6	2875.7	2197.6	1772.6	1545.2	1381.7	1341.9
16°	2595.6	2742.0	2949.6	2875.7	2180.6	1729.9	1488.3	1343.3	1303.5
17°	2511.8	2631.2	2905.5	2877.1	2152.1	1700.1	1431.4	1307.8	1276.5
18°	2393.8	2527.4	2835.9	2871.4	2122.3	1664.6	1383.1	1277.9	1239.5
19°	2263.0	2422.2	2761.9	2861.4	2096.7	1627.6	1331.9	1246.6	1213.9
20°	2170.6	2317.0	2689.4	2845.8	2069.7	1603.4	1304.9	1211.1	1181.3
21°	2015.7	2194.8	2617.0	2824.5	2041.3	1562.2	1268.0	1179.8	1147.1
22.5°	1857.9	2022.8	2483.3	2789.0	1994.3	1511.0	1226.7	1141.5	1093.1
23°	1796.8	1981.6	2442.1	2779.0	1978.7	1498.2	1213.9	1124.4	1081.8
24°	1666.0	1857.9	2356.8	2747.7	1944.6	1455.6	1189.8	1090.3	1060.4
25°	1492.6	1752.7	2277.2	2715.0	1916.2	1424.3	1165.6	1063.3	1024.9
26°	1296.4	1609.1	2204.7	2675.2	1876.4	1381.7	1132.9	1037.7	983.7
27°	1175.6	1485.5	2106.6	2632.6	1847.9	1350.4	1105.9	999.3	960.9
28°	1078.9	1290.7	2018.5	2591.4	1813.8	1312.0	1087.4	972.3	926.8
29°	973.7	1184.1	1914.7	2535.9	1776.9	1268.0	1057.6	945.3	897.0
30°	912.6	1070.4	1825.2	2494.7	1732.8	1238.1	1022.0	918.3	869.9
32.5°	801.7	882.7	1582.1	2376.7	1648.9	1152.8	963.8	844.4	803.1
35°	743.4	786.1	1272.2	2238.8	1553.7	1081.8	897.0	783.2	746.3
37.5°	699.4	725.0	1050.5	2091.0	1457.0	1019.2	835.8	726.4	690.8
40°	655.3	675.2	869.9	1948.9	1363.2	958.1	776.1	668.1	641.1
42.5°	615.5	631.1	754.8	1808.1	1266.5	895.5	717.8	622.6	598.4
45°	571.4	585.7	688.0	1637.6	1169.9	831.6	663.8	572.9	558.6
47.5°	534.5	544.4	624.0	1485.5	1074.6	770.4	608.4	533.1	523.1
50°	494.7	507.5	570.0	1316.3	987.9	710.7	561.5	497.5	489.0
52.5°	456.3	462.0	524.5	1147.1	897.0	652.5	511.7	462.0	456.3
55°	405.1	427.9	470.5	973.7	806.0	598.4	460.6	425.0	420.8
57.5°	346.8	376.7	422.2	817.4	720.7	538.7	419.3	390.9	372.4
60°	278.6	314.1	373.9	679.5	645.4	484.7	376.7	332.6	309.9
62.5°	244.5	255.9	329.8	568.6	568.6	433.6	334.0	285.7	275.8
65°	213.2	221.8	282.9	470.5	494.7	376.7	295.7	247.3	238.8



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°
67.5°	186.2	193.3	216.1	392.3	426.4	328.4	244.5	216.1	206.1
70°	159.2	164.9	184.8	319.8	363.9	280.0	206.1	184.8	177.7
72.5°	135.0	140.7	152.1	240.2	298.5	233.1	173.4	157.8	152.1
75°	112.3	115.1	126.5	179.1	240.2	186.2	139.3	129.4	126.5
77.5°	91.0	92.4	99.5	127.9	186.2	142.1	112.3	103.8	102.3
80°	69.7	71.1	76.8	92.4	136.5	102.3	83.9	79.6	76.8
82.5°	49.8	51.2	54.0	62.5	92.4	69.7	59.7	58.3	54.0
85°	31.3	31.3	34.1	38.4	52.6	39.8	37.0	35.5	34.1
87.5°	14.2	14.2	15.6	15.6	24.2	17.1	17.1	15.6	14.2
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)