

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: P735902

Luminaire Tested: S122RDR-S1005D927-X4F0-XX-UDD-W-W

Issue Date: 1/24/2024

Test Information

Test Method: LM-79-2019
Report Number: P735902
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-S1005D927-X4F0-XX-UDD-W-W
Description: DEFINE 2 REGRESSED DIRECT RECESSED WITH WALL WASH OPTIC
Light Source: 2700K CCT, 90 CRI LEDS
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 3404.3 lumens
Efficiency: N/A
Efficacy: 81.4 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

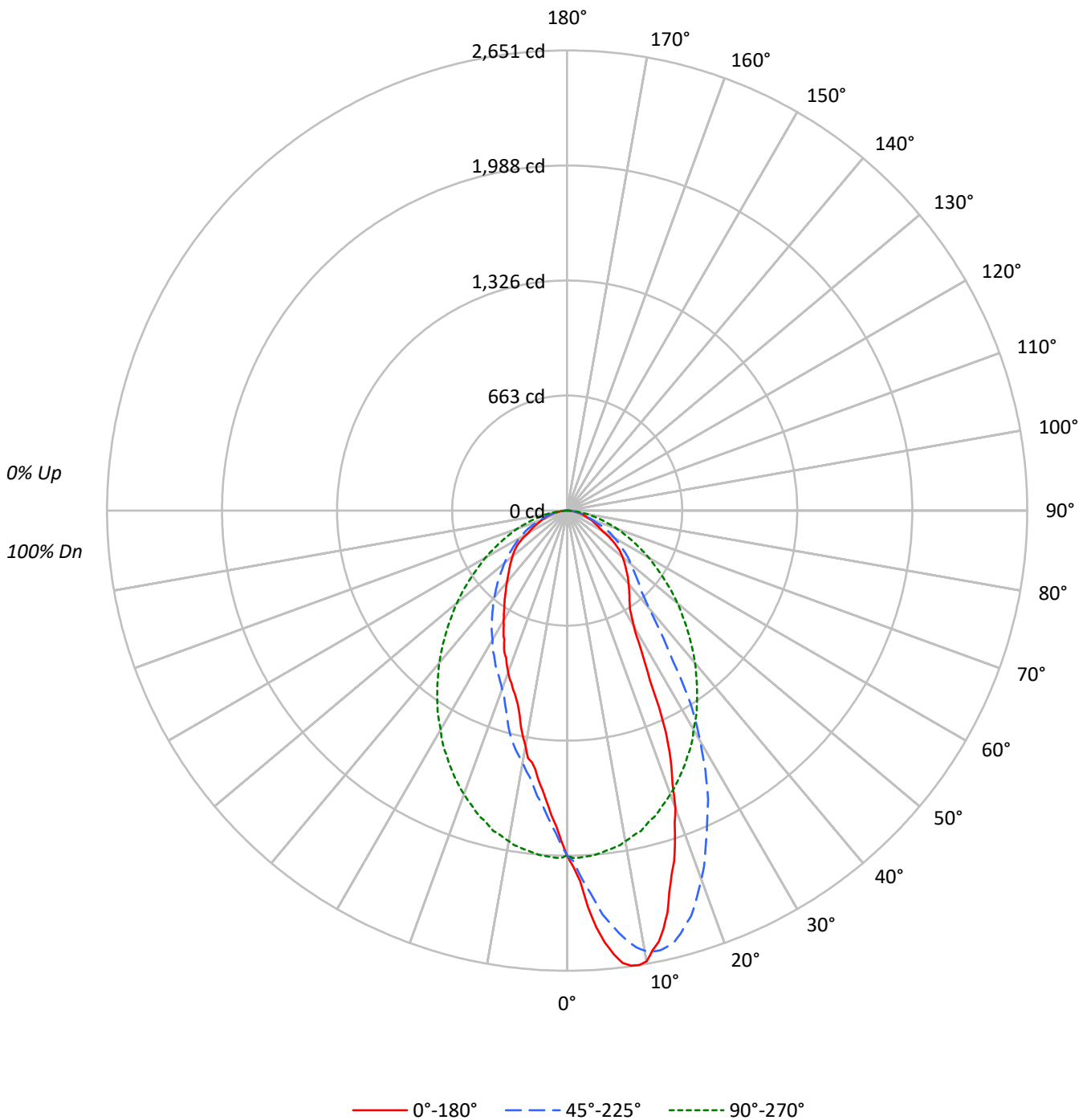
Input Watts (W): 41.8
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



TEST NUMBER: P735902

CATALOG NUMBER: S122RDR-S1005D927-X4F0-XX-UDD-W-W

Luminous Intensity Polar Plot



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CATALOG NUMBER: S122RDR-S1005D927-X4F0-XX-UDD-W-W

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°	38189	38189	38189	38189	38189
5°	48179	45067	38335	32571	31190
10°	51463	50251	37753	28822	26933
15°	45265	50234	36754	25843	22442
20°	37316	46236	35581	22435	20308
25°	26606	40591	34156	20778	18269
30°	17023	34047	32325	19065	16229
35°	14661	25091	30640	17690	14717
40°	13820	18347	28747	16367	13519
45°	13056	15717	26729	15165	12762
50°	12434	14327	24828	14111	12290
55°	11411	13254	22701	12972	11850
60°	9003	12079	20851	12171	10010
65°	8150	10811	18911	11302	9128
70°	7519	8728	17186	9734	8391
75°	7011	7894	14994	8696	7894
80°	6475	7140	12696	7804	7140
85°	5800	6329	9748	6859	6329

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 67.5°
 Vertical Angle: 45°
 Luminance: 37412 cd/sqm



TEST NUMBER: P735902

CATALOG NUMBER: S122RDR-S1005D927-X4F0-XX-UDD-W-W

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	192.7	5.7
10°-20°	517.8	15.2
20°-30°	649.5	19.1
30°-40°	618.8	18.2
40°-50°	545.9	16.0
50°-60°	429.4	12.6
60°-70°	274.0	8.0
70°-80°	139.3	4.1
80°-90°	36.9	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°	1359.9	39.9
0°-40°	1978.7	58.1
0°-60°	2954.1	86.8
0°-90°	3404.3	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3404.3	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	1987	1987	1987	1987	1987	
5°	2497	2336	1987	1688	1616	243
15°	2275	2524	1847	1299	1128	630
25°	1254	1914	1610	980	861	565
35°	625	1069	1306	754	627	397
45°	480	578	983	558	470	372
55°	340	396	677	387	354	299
65°	179	238	416	248	201	179
75°	94	106	202	117	106	100
85°	26	29	44	31	29	30
90°	0	0	0	0	0	



TEST NUMBER: P735902

CATALOG NUMBER: S122RDR-S1005D927-X4F0-XX-UDD-W-W

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°
0°	1986.8	1986.8	1986.8	1986.8	1986.8	1986.8	1986.8	1986.8	1986.8
1°	2053.7	2063.3	2019.1	2023.9	2002.4	1964.1	1927.1	1930.7	1904.4
2°	2136.2	2161.2	2100.3	2063.3	2001.2	1934.3	1860.2	1850.6	1818.4
3°	2285.5	2273.6	2173.2	2097.9	1996.4	1896.0	1802.8	1781.3	1753.8
4°	2406.2	2370.3	2247.3	2142.1	1994.0	1851.8	1746.7	1709.6	1682.2
5°	2497.0	2451.6	2335.7	2175.6	1986.8	1826.7	1688.1	1646.3	1616.5
6°	2569.8	2535.2	2393.0	2206.6	1977.3	1789.7	1653.5	1597.3	1566.3
7°	2626.0	2597.3	2451.6	2248.5	1968.9	1752.7	1598.5	1540.0	1503.0
8°	2647.5	2634.4	2505.3	2278.3	1959.3	1726.4	1549.6	1497.0	1463.5
9°	2651.1	2652.3	2548.3	2307.0	1951.0	1678.6	1514.9	1461.1	1443.2
10°	2636.7	2647.5	2574.6	2339.3	1934.3	1654.7	1476.7	1425.3	1379.9
11°	2580.6	2628.4	2587.8	2360.8	1919.9	1616.5	1443.2	1376.3	1330.9
12°	2538.8	2584.2	2589.0	2388.2	1903.2	1598.5	1414.5	1324.9	1277.2
13°	2469.5	2517.3	2577.0	2395.4	1893.6	1554.3	1378.7	1272.4	1213.8
14°	2387.0	2463.5	2557.9	2410.9	1869.7	1516.1	1342.9	1198.3	1163.7
15°	2274.7	2383.5	2524.4	2416.9	1847.0	1489.8	1298.7	1161.3	1127.8
16°	2181.6	2304.6	2479.0	2416.9	1832.7	1454.0	1250.9	1129.0	1095.6
17°	2111.1	2211.4	2442.0	2418.1	1808.8	1428.9	1203.1	1099.1	1072.9
18°	2011.9	2124.2	2383.5	2413.3	1783.7	1399.0	1162.5	1074.1	1041.8
19°	1902.0	2035.8	2321.3	2405.0	1762.2	1368.0	1119.5	1047.8	1020.3
20°	1824.3	1947.4	2260.4	2391.8	1739.5	1347.6	1096.8	1017.9	992.8
21°	1694.1	1844.6	2199.5	2373.9	1715.6	1313.0	1065.7	991.6	964.1
22.5°	1561.5	1700.1	2087.2	2344.0	1676.2	1270.0	1031.0	959.4	918.7
23°	1510.1	1665.4	2052.5	2335.7	1663.0	1259.2	1020.3	945.0	909.2
24°	1400.2	1561.5	1980.8	2309.4	1634.4	1223.4	1000.0	916.3	891.3
25°	1254.5	1473.1	1913.9	2281.9	1610.5	1197.1	979.7	893.7	861.4
26°	1089.6	1352.4	1853.0	2248.5	1577.0	1161.3	952.2	872.1	826.7
27°	988.0	1248.5	1770.6	2212.6	1553.1	1135.0	929.5	839.9	807.6
28°	906.8	1084.8	1696.5	2178.0	1524.5	1102.7	914.0	817.2	779.0
29°	818.4	995.2	1609.3	2131.4	1493.4	1065.7	888.9	794.5	753.9
30°	767.0	899.6	1534.0	2096.7	1456.4	1040.6	859.0	771.8	731.2
32.5°	673.8	741.9	1329.7	1997.6	1385.9	968.9	810.0	709.7	675.0
35°	624.8	660.7	1069.3	1881.7	1305.8	909.2	753.9	658.3	627.2
37.5°	587.8	609.3	882.9	1757.4	1224.6	856.6	702.5	610.5	580.6
40°	550.8	567.5	731.2	1638.0	1145.7	805.2	652.3	561.5	538.8
42.5°	517.3	530.5	634.4	1519.7	1064.5	752.7	603.3	523.3	503.0
45°	480.3	492.2	578.2	1376.3	983.3	698.9	557.9	481.5	469.5
47.5°	449.2	457.6	524.5	1248.5	903.2	647.5	511.3	448.0	439.7
50°	415.8	426.5	479.1	1106.3	830.3	597.4	471.9	418.2	411.0
52.5°	383.5	388.3	440.9	964.1	753.9	548.4	430.1	388.3	383.5
55°	340.5	359.6	395.5	818.4	677.4	503.0	387.1	357.2	353.6
57.5°	291.5	316.6	354.8	687.0	605.7	452.8	352.4	328.5	313.0
60°	234.2	264.0	314.2	571.1	542.4	407.4	316.6	279.6	260.4
62.5°	205.5	215.0	277.2	477.9	477.9	364.4	280.8	240.1	231.8
65°	179.2	186.4	237.7	395.5	415.8	316.6	248.5	207.9	200.7



TEST NUMBER: P735902

CATALOG NUMBER: S122RDR-S1005D927-X4F0-XX-UDD-W-W

CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°
67.5°	156.5	162.5	181.6	329.7	358.4	276.0	205.5	181.6	173.2
70°	133.8	138.6	155.3	268.8	305.8	235.4	173.2	155.3	149.3
72.5°	113.5	118.3	127.8	201.9	250.9	195.9	145.8	132.6	127.8
75°	94.4	96.8	106.3	150.5	201.9	156.5	117.1	108.7	106.3
77.5°	76.5	77.7	83.6	107.5	156.5	119.5	94.4	87.2	86.0
80°	58.5	59.7	64.5	77.7	114.7	86.0	70.5	66.9	64.5
82.5°	41.8	43.0	45.4	52.6	77.7	58.5	50.2	49.0	45.4
85°	26.3	26.3	28.7	32.3	44.2	33.5	31.1	29.9	28.7
87.5°	11.9	11.9	13.1	13.1	20.3	14.3	14.3	13.1	11.9
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)