

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: P735933

Luminaire Tested: S122RDR-S675D950-X4F0-XX-UDD-W-W

Issue Date: 1/24/2024

Test Information

Test Method: LM-79-2019
Report Number: P735933
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-S675D950-X4F0-XX-UDD-W-W
Description: DEFINE 2 REGRESSED DIRECT RECESSED WITH WALL WASH OPTIC
Light Source: 5000K CCT, 90 CRI LEDS
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 2718.4 lumens
Efficiency: N/A
Efficacy: 103.4 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

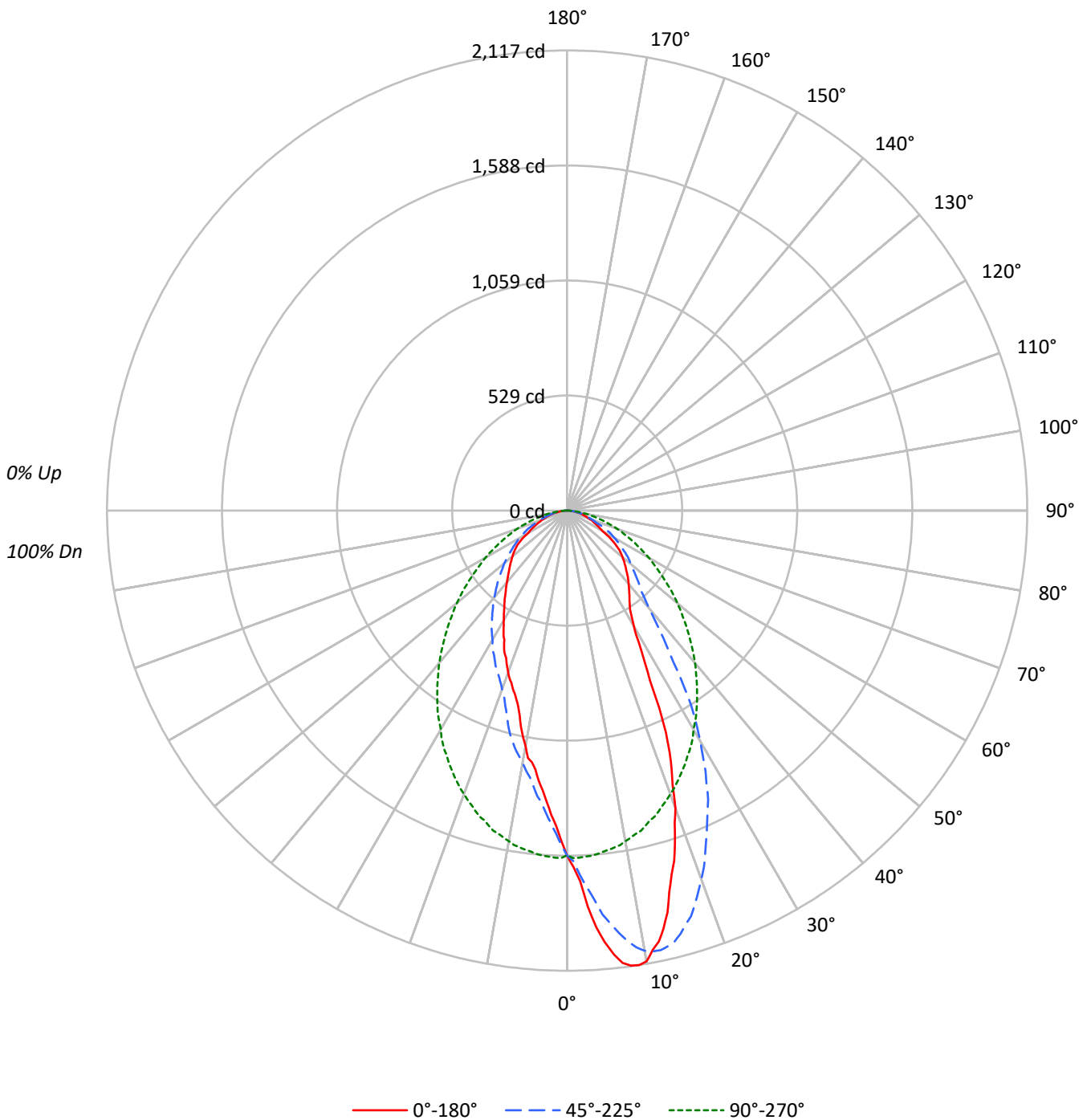
Input Watts (W): 26.3
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Luminous Intensity Polar Plot



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COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:

RF	20									20									20									20																		
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	50	30	10	0																			
RCR																																														
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	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°	30495	30495	30495	30495	30495
5°	38472	35987	30611	26009	24906
10°	41095	40127	30145	23013	21507
15°	36145	40113	29350	20636	17921
20°	29799	36921	28412	17914	16217
25°	21244	32413	27274	16591	14587
30°	13594	27186	25810	15223	12957
35°	11707	20034	24467	14126	11754
40°	11035	14648	22956	13070	10797
45°	10425	12550	21341	12110	10191
50°	9928	11441	19826	11267	9814
55°	9112	10583	18126	10358	9464
60°	7189	9645	16649	9718	7996
65°	6508	8632	15100	9024	7291
70°	6002	6969	13724	7772	6705
75°	5600	6305	11972	6944	6305
80°	5169	5701	10139	6232	5701
85°	4631	5050	7785	5469	5050

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 67.5°
 Vertical Angle: 45°
 Luminance: 29874 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	153.9	5.7
10°-20°	413.4	15.2
20°-30°	518.6	19.1
30°-40°	494.1	18.2
40°-50°	435.9	16.0
50°-60°	342.9	12.6
60°-70°	218.8	8.0
70°-80°	111.2	4.1
80°-90°	29.5	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°	1085.9	39.9
0°-40°	1580.0	58.1
0°-60°	2358.9	86.8
0°-90°	2718.4	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2718.4	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	1586	1586	1586	1586	1586	
5°	1994	1865	1586	1348	1291	194
15°	1816	2016	1475	1037	901	503
25°	1002	1528	1286	782	688	451
35°	499	854	1043	602	501	317
45°	384	462	785	446	375	297
55°	272	316	541	309	282	239
65°	143	190	332	198	160	143
75°	75	85	161	94	85	80
85°	21	23	35	25	23	24
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°	1586.5	1586.5	1586.5	1586.5	1586.5	1586.5	1586.5	1586.5	1586.5
1°	1639.9	1647.6	1612.3	1616.1	1598.9	1568.4	1538.8	1541.7	1520.7
2°	1705.8	1725.8	1677.1	1647.6	1598.0	1544.5	1485.4	1477.7	1452.0
3°	1825.0	1815.5	1735.3	1675.2	1594.1	1514.0	1439.6	1422.4	1400.5
4°	1921.4	1892.7	1794.5	1710.5	1592.2	1478.7	1394.7	1365.2	1343.2
5°	1993.9	1957.6	1865.1	1737.2	1586.5	1458.7	1348.0	1314.6	1290.8
6°	2052.1	2024.4	1910.9	1762.0	1578.9	1429.1	1320.3	1275.5	1250.7
7°	2096.9	2074.0	1957.6	1795.4	1572.2	1399.5	1276.5	1229.7	1200.1
8°	2114.1	2103.6	2000.5	1819.3	1564.6	1378.5	1237.3	1195.4	1168.7
9°	2116.9	2117.9	2034.9	1842.2	1557.9	1340.4	1209.7	1166.7	1152.4
10°	2105.5	2114.1	2055.9	1867.9	1544.5	1321.3	1179.1	1138.1	1101.9
11°	2060.6	2098.8	2066.4	1885.1	1533.1	1290.8	1152.4	1099.0	1062.8
12°	2027.3	2063.5	2067.3	1907.0	1519.7	1276.5	1129.5	1058.0	1019.8
13°	1971.9	2010.1	2057.8	1912.8	1512.1	1241.2	1100.9	1016.0	969.3
14°	1906.1	1967.1	2042.5	1925.2	1493.0	1210.6	1072.3	956.9	929.2
15°	1816.4	1903.2	2015.8	1929.9	1474.9	1189.6	1037.0	927.3	900.6
16°	1742.0	1840.3	1979.6	1929.9	1463.4	1161.0	998.8	901.5	874.8
17°	1685.7	1765.9	1950.0	1930.9	1444.4	1141.0	960.7	877.7	856.7
18°	1606.5	1696.2	1903.2	1927.1	1424.3	1117.1	928.2	857.6	831.9
19°	1518.8	1625.6	1853.6	1920.4	1407.2	1092.3	893.9	836.7	814.7
20°	1456.8	1555.0	1805.0	1909.9	1389.0	1076.1	875.8	812.8	792.8
21°	1352.8	1473.0	1756.3	1895.6	1369.9	1048.4	851.0	791.8	769.9
22.5°	1246.9	1357.5	1666.6	1871.7	1338.5	1014.1	823.3	766.1	733.6
23°	1205.9	1329.9	1639.0	1865.1	1328.0	1005.5	814.7	754.6	726.0
24°	1118.1	1246.9	1581.7	1844.1	1305.1	976.9	798.5	731.7	711.7
25°	1001.7	1176.3	1528.3	1822.1	1286.0	955.9	782.3	713.6	687.8
26°	870.0	1079.9	1479.7	1795.4	1259.3	927.3	760.3	696.4	660.2
27°	789.0	996.9	1413.8	1766.8	1240.2	906.3	742.2	670.7	644.9
28°	724.1	866.2	1354.7	1739.1	1217.3	880.5	729.8	652.5	622.0
29°	653.5	794.7	1285.0	1701.9	1192.5	851.0	709.8	634.4	602.0
30°	612.5	718.4	1224.9	1674.3	1162.9	830.9	685.9	616.3	583.8
32.5°	538.1	592.4	1061.8	1595.1	1106.6	773.7	646.8	566.7	539.0
35°	498.9	527.6	853.8	1502.6	1042.7	726.0	602.0	525.7	500.9
37.5°	469.4	486.5	705.0	1403.3	977.9	684.0	561.0	487.5	463.6
40°	439.8	453.2	583.8	1307.9	914.9	643.0	520.9	448.4	430.3
42.5°	413.1	423.6	506.6	1213.5	850.0	601.0	481.8	417.9	401.6
45°	383.5	393.0	461.7	1099.0	785.1	558.1	445.5	384.5	374.9
47.5°	358.7	365.4	418.8	996.9	721.2	517.1	408.3	357.8	351.1
50°	332.0	340.6	382.6	883.4	663.0	477.0	376.8	333.9	328.2
52.5°	306.2	310.1	352.0	769.9	602.0	437.9	343.4	310.1	306.2
55°	271.9	287.2	315.8	653.5	540.9	401.6	309.1	285.2	282.4
57.5°	232.8	252.8	283.3	548.6	483.7	361.6	281.4	262.4	249.9
60°	187.0	210.8	250.9	456.0	433.1	325.3	252.8	223.2	208.0
62.5°	164.1	171.7	221.3	381.6	381.6	291.0	224.2	191.8	185.1
65°	143.1	148.8	189.8	315.8	332.0	252.8	198.4	166.0	160.3



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°
67.5°	125.0	129.7	145.0	263.3	286.2	220.4	164.1	145.0	138.3
70°	106.8	110.7	124.0	214.7	244.2	187.9	138.3	124.0	119.3
72.5°	90.6	94.4	102.1	161.2	200.3	156.5	116.4	105.9	102.1
75°	75.4	77.3	84.9	120.2	161.2	125.0	93.5	86.8	84.9
77.5°	61.1	62.0	66.8	85.9	125.0	95.4	75.4	69.6	68.7
80°	46.7	47.7	51.5	62.0	91.6	68.7	56.3	53.4	51.5
82.5°	33.4	34.3	36.3	42.0	62.0	46.7	40.1	39.1	36.3
85°	21.0	21.0	22.9	25.8	35.3	26.7	24.8	23.9	22.9
87.5°	9.5	9.5	10.5	10.5	16.2	11.4	11.4	10.5	9.5
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)