

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: P735931

Luminaire Tested: S122RDR-S675D935-X4F0-XX-UDD-W-W

Issue Date: 1/24/2024

Test Information

Test Method: LM-79-2019
Report Number: P735931
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-S675D935-X4F0-XX-UDD-W-W
Description: DEFINE 2 REGRESSED DIRECT RECESSED WITH WALL WASH OPTIC
Light Source: 3500K CCT, 90 CRI LEDS
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 2453.4 lumens
Efficiency: N/A
Efficacy: 93.3 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

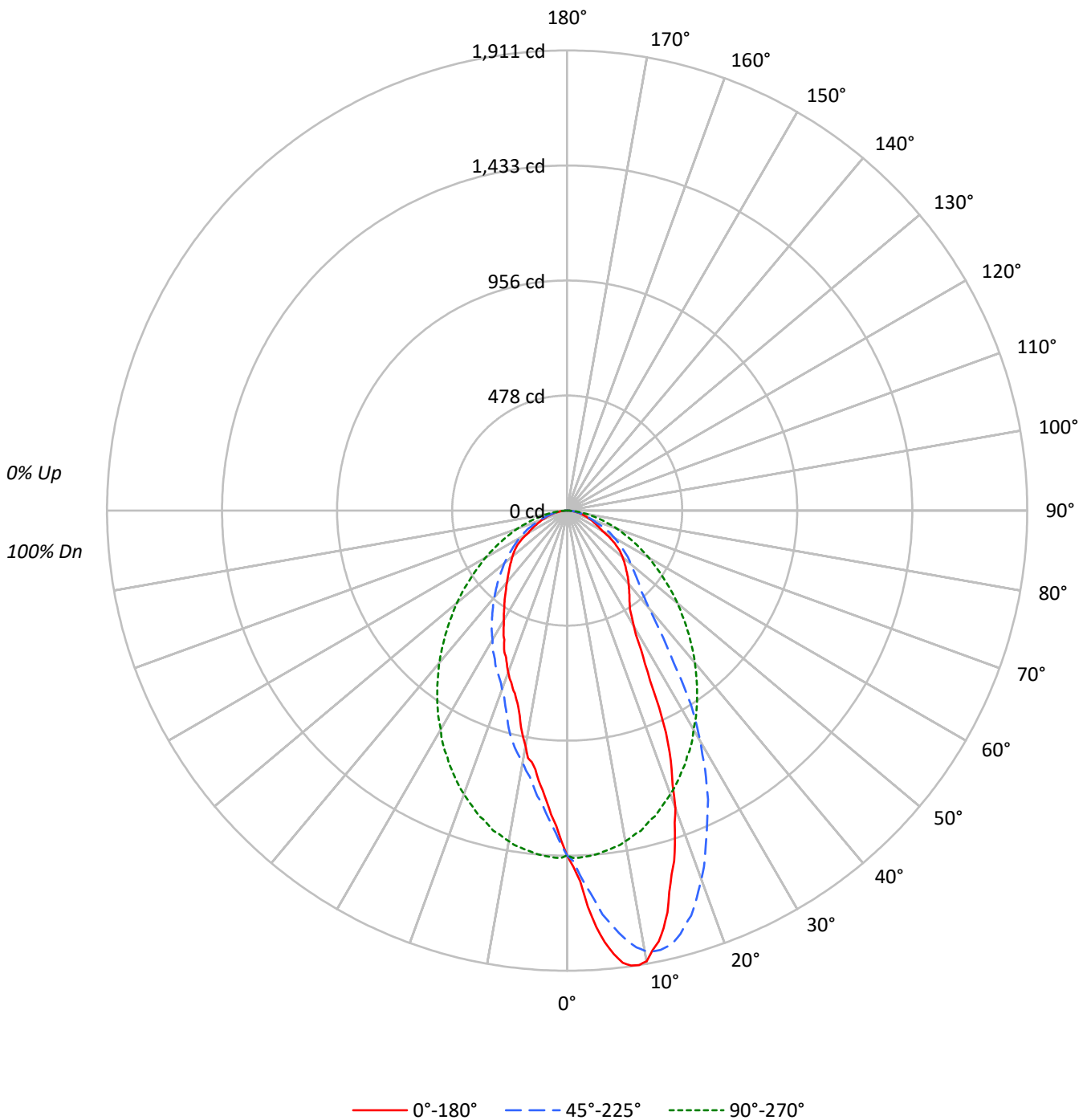
Input Watts (W): 26.3
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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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	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°	27521	27521	27521	27521	27521
5°	34721	32479	27626	23474	22476
10°	37088	36215	27208	20771	19410
15°	32621	36203	26488	18624	16174
20°	26892	33321	25642	16168	14635
25°	19172	29253	24614	14973	13166
30°	12269	24536	23296	13741	11694
35°	10566	18082	22083	12748	10606
40°	9959	13221	20718	11796	9743
45°	9408	11327	19262	10930	9199
50°	8959	10326	17894	10170	8857
55°	8224	9551	16360	9350	8542
60°	6489	8703	15027	8773	7216
65°	5872	7791	13626	8146	6577
70°	5418	6289	12386	7014	6047
75°	5050	5689	10806	6268	5689
80°	4671	5147	9154	5623	5147
85°	4168	4565	7035	4940	4565

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 67.5°
 Vertical Angle: 45°
 Luminance: 26963 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	138.9	5.7
10°-20°	373.1	15.2
20°-30°	468.0	19.1
30°-40°	446.0	18.2
40°-50°	393.4	16.0
50°-60°	309.5	12.6
60°-70°	197.5	8.0
70°-80°	100.4	4.1
80°-90°	26.6	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°	980.0	39.9
0°-40°	1426.0	58.1
0°-60°	2128.9	86.8
0°-90°	2453.4	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2453.4	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	1432	1432	1432	1432	1432	
5°	1800	1683	1432	1217	1165	175
15°	1639	1819	1331	936	813	454
25°	904	1379	1161	706	621	407
35°	450	771	941	543	452	286
45°	346	417	709	402	338	268
55°	245	285	488	279	255	216
65°	129	171	300	179	145	129
75°	68	77	146	84	77	72
85°	19	21	32	22	21	21
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°	1431.8	1431.8	1431.8	1431.8	1431.8	1431.8	1431.8	1431.8	1431.8
1°	1480.1	1486.9	1455.1	1458.5	1443.0	1415.5	1388.8	1391.4	1372.4
2°	1539.5	1557.5	1513.6	1486.9	1442.2	1394.0	1340.6	1333.7	1310.4
3°	1647.1	1638.5	1566.2	1511.9	1438.7	1366.4	1299.2	1283.7	1263.9
4°	1734.1	1708.2	1619.5	1543.8	1437.0	1334.5	1258.8	1232.1	1212.3
5°	1799.5	1766.8	1683.3	1567.9	1431.8	1316.5	1216.6	1186.5	1164.9
6°	1852.0	1827.0	1724.6	1590.3	1425.0	1289.8	1191.6	1151.2	1128.8
7°	1892.5	1871.8	1766.8	1620.4	1418.9	1263.1	1152.0	1109.8	1083.1
8°	1908.0	1898.5	1805.5	1641.9	1412.0	1244.1	1116.7	1078.8	1054.7
9°	1910.6	1911.4	1836.5	1662.6	1406.0	1209.7	1091.7	1053.0	1040.1
10°	1900.2	1908.0	1855.5	1685.8	1394.0	1192.5	1064.2	1027.2	994.5
11°	1859.8	1894.2	1864.9	1701.3	1383.6	1164.9	1040.1	991.9	959.2
12°	1829.6	1862.3	1865.8	1721.1	1371.6	1152.0	1019.4	954.8	920.4
13°	1779.7	1814.1	1857.2	1726.3	1364.7	1120.2	993.6	917.0	874.8
14°	1720.3	1775.4	1843.4	1737.5	1347.5	1092.6	967.8	863.6	838.6
15°	1639.3	1717.7	1819.3	1741.8	1331.1	1073.7	935.9	836.9	812.8
16°	1572.2	1660.9	1786.6	1741.8	1320.8	1047.8	901.5	813.6	789.5
17°	1521.4	1593.7	1759.9	1742.7	1303.6	1029.8	867.0	792.1	773.2
18°	1449.9	1530.9	1717.7	1739.2	1285.5	1008.2	837.8	774.0	750.8
19°	1370.7	1467.1	1672.9	1733.2	1270.0	985.8	806.8	755.1	735.3
20°	1314.7	1403.4	1629.0	1723.7	1253.6	971.2	790.4	733.6	715.5
21°	1220.9	1329.4	1585.1	1710.8	1236.4	946.2	768.0	714.6	694.8
22.5°	1125.3	1225.2	1504.2	1689.3	1208.0	915.2	743.0	691.4	662.1
23°	1088.3	1200.2	1479.2	1683.3	1198.5	907.5	735.3	681.0	655.2
24°	1009.1	1125.3	1427.5	1664.3	1177.8	881.7	720.7	660.4	642.3
25°	904.0	1061.6	1379.3	1644.5	1160.6	862.7	706.0	644.0	620.8
26°	785.2	974.7	1335.4	1620.4	1136.5	836.9	686.2	628.5	595.8
27°	712.0	899.7	1276.0	1594.6	1119.3	817.9	669.9	605.3	582.0
28°	653.5	781.8	1222.6	1569.6	1098.6	794.7	658.7	588.9	561.4
29°	589.8	717.2	1159.8	1536.0	1076.2	768.0	640.6	572.6	543.3
30°	552.8	648.3	1105.5	1511.1	1049.6	749.9	619.1	556.2	526.9
32.5°	485.6	534.7	958.3	1439.6	998.8	698.3	583.8	511.4	486.5
35°	450.3	476.1	770.6	1356.1	941.1	655.2	543.3	474.4	452.0
37.5°	423.6	439.1	636.3	1266.5	882.5	617.3	506.3	440.0	418.4
40°	396.9	409.0	526.9	1180.4	825.7	580.3	470.1	404.7	388.3
42.5°	372.8	382.3	457.2	1095.2	767.1	542.4	434.8	377.1	362.5
45°	346.1	354.7	416.7	991.9	708.6	503.7	402.1	347.0	338.4
47.5°	323.7	329.8	378.0	899.7	650.9	466.7	368.5	322.9	316.8
50°	299.6	307.4	345.3	797.3	598.4	430.5	340.1	301.3	296.2
52.5°	276.4	279.8	317.7	694.8	543.3	395.2	310.0	279.8	276.4
55°	245.4	259.2	285.0	589.8	488.2	362.5	279.0	257.4	254.9
57.5°	210.1	228.2	255.7	495.1	436.5	326.3	254.0	236.8	225.6
60°	168.8	190.3	226.4	411.6	390.9	293.6	228.2	201.5	187.7
62.5°	148.1	155.0	199.8	344.4	344.4	262.6	202.3	173.1	167.0
65°	129.1	134.3	171.3	285.0	299.6	228.2	179.1	149.8	144.6

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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°
67.5°	112.8	117.1	130.9	237.6	258.3	198.9	148.1	130.9	124.8
70°	96.4	99.9	111.9	193.7	220.4	169.6	124.8	111.9	107.6
72.5°	81.8	85.2	92.1	145.5	180.8	141.2	105.0	95.6	92.1
75°	68.0	69.7	76.6	108.5	145.5	112.8	84.4	78.4	76.6
77.5°	55.1	56.0	60.3	77.5	112.8	86.1	68.0	62.9	62.0
80°	42.2	43.0	46.5	56.0	82.7	62.0	50.8	48.2	46.5
82.5°	30.1	31.0	32.7	37.9	56.0	42.2	36.2	35.3	32.7
85°	18.9	18.9	20.7	23.2	31.9	24.1	22.4	21.5	20.7
87.5°	8.6	8.6	9.5	9.5	14.6	10.3	10.3	9.5	8.6
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)