

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: P735929

Luminaire Tested: S122RDR-S675D927-X4F0-XX-UDD-W-W

Issue Date: 1/24/2024

**Test Information**

Test Method: LM-79-2019  
Report Number: P735929  
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-S675D927-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: 2257.3 lumens  
Efficiency: N/A  
Efficacy: 85.8 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

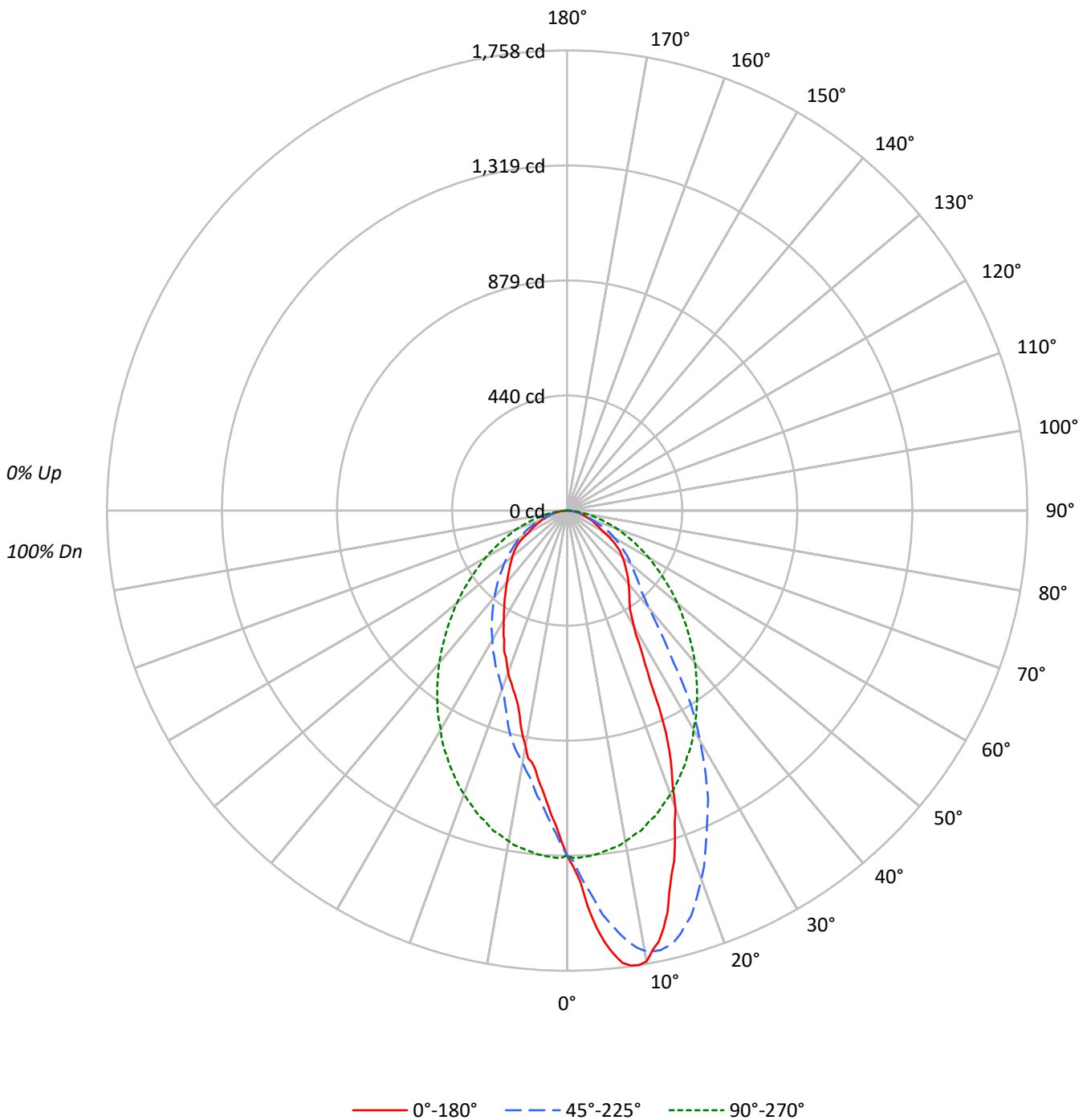
Input Watts (W): 26.3  
Input Voltage (V): 120  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 24 FT



TEST NUMBER: P735929

CATALOG NUMBER: S122RDR-S675D927-X4F0-XX-UDD-W-W

### Luminous Intensity Polar Plot



TEST NUMBER: P735929

CATALOG NUMBER: S122RDR-S675D927-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					87			
2	102	95	89	84	99	93	87	83	89	85	81	86	82	79	83	80	77	75					75			
3	94	85	78	72	92	83	77	71	80	75	70	78	73	69	75	71	68	66					66			
4	87	77	69	63	85	75	68	62	73	67	62	71	65	61	69	64	60	58					58			
5	81	69	61	55	79	68	61	55	66	60	55	64	59	54	63	58	54	52					52			
6	75	63	55	50	74	63	55	49	61	54	49	59	53	49	58	52	48	46					46			
7	71	58	50	45	69	57	50	45	56	49	44	55	49	44	53	48	44	42					42			
8	66	54	46	41	65	53	46	41	52	45	40	51	45	40	50	44	40	38					38			
9	62	50	42	37	61	49	42	37	48	42	37	47	41	37	46	41	37	35					35			
10	59	46	39	34	57	46	39	34	45	39	34	44	38	34	43	38	34	32					32			

**AVERAGE LUMINANCE (cd/sqm):**

	0°	45°	90°	135°	180°
0°	25322	25322	25322	25322	25322
5°	31946	29882	25419	21598	20680
10°	34123	33321	25032	19110	17859
15°	30014	33309	24371	17135	14881
20°	24744	30658	23593	14875	13465
25°	17641	26915	22648	13777	12114
30°	11288	22577	21434	12642	10760
35°	9721	16637	20318	11730	9759
40°	9163	12164	19062	10852	8965
45°	8658	10422	17723	10055	8462
50°	8244	9500	16465	9357	8149
55°	7567	8787	15053	8602	7858
60°	5970	8008	13828	8069	6639
65°	5403	7168	12539	7495	6054
70°	4985	5789	11397	6457	5564
75°	4649	5236	9944	5763	5236
80°	4295	4738	8413	5169	4738
85°	3837	4190	6462	4543	4190

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 67.5°  
 Vertical Angle: 45°  
 Luminance: 24807 cd/sqm

TEST NUMBER: P735929

CATALOG NUMBER: S122RDR-S675D927-X4F0-XX-UDD-W-W

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	127.8	5.7
10°-20°	343.3	15.2
20°-30°	430.6	19.1
30°-40°	410.3	18.2
40°-50°	362.0	16.0
50°-60°	284.7	12.6
60°-70°	181.7	8.0
70°-80°	92.4	4.1
80°-90°	24.5	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°	901.7	39.9
0°-40°	1312.0	58.1
0°-60°	1958.8	86.8
0°-90°	2257.3	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2257.3	100.0

**CANDELA DISTRIBUTION:**

	0°	45°	90°	135°	180°	Flux
0°	1317	1317	1317	1317	1317	
5°	1656	1549	1317	1119	1072	161
15°	1508	1674	1225	861	748	418
25°	832	1269	1068	650	571	375
35°	414	709	866	500	416	263
45°	318	383	652	370	311	247
55°	226	262	449	257	234	198
65°	119	158	276	165	133	119
75°	63	70	134	78	70	67
85°	17	19	29	21	19	20
90°	0	0	0	0	0	

TEST NUMBER: P735929

CATALOG NUMBER: S122RDR-S675D927-X4F0-XX-UDD-W-W

**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°
0°	1317.4	1317.4	1317.4	1317.4	1317.4	1317.4	1317.4	1317.4	1317.4
1°	1361.8	1368.1	1338.8	1342.0	1327.7	1302.3	1277.8	1280.2	1262.7
2°	1416.4	1433.1	1392.7	1368.1	1326.9	1282.5	1233.4	1227.1	1205.7
3°	1515.4	1507.5	1441.0	1391.1	1323.7	1257.2	1195.4	1181.1	1162.9
4°	1595.5	1571.7	1490.1	1420.4	1322.2	1227.9	1158.2	1133.6	1115.4
5°	1655.7	1625.6	1548.7	1442.6	1317.4	1211.2	1119.4	1091.6	1071.8
6°	1704.0	1681.0	1586.7	1463.2	1311.1	1186.7	1096.4	1059.1	1038.6
7°	1741.2	1722.2	1625.6	1490.9	1305.5	1162.1	1059.9	1021.1	996.6
8°	1755.5	1746.8	1661.2	1510.7	1299.2	1144.7	1027.5	992.6	970.4
9°	1757.9	1758.6	1689.7	1529.7	1293.6	1113.0	1004.5	968.8	957.0
10°	1748.3	1755.5	1707.2	1551.1	1282.5	1097.2	979.1	945.1	915.0
11°	1711.1	1742.8	1715.9	1565.4	1273.0	1071.8	957.0	912.6	882.5
12°	1683.4	1713.5	1716.7	1583.6	1261.9	1059.9	937.9	878.5	846.8
13°	1637.4	1669.1	1708.7	1588.3	1255.6	1030.6	914.2	843.7	804.9
14°	1582.8	1633.5	1696.1	1598.6	1239.8	1005.3	890.4	794.6	771.6
15°	1508.3	1580.4	1673.9	1602.6	1224.7	987.9	861.1	770.0	747.8
16°	1446.5	1528.1	1643.8	1602.6	1215.2	964.1	829.4	748.6	726.4
17°	1399.8	1466.3	1619.2	1603.4	1199.4	947.4	797.7	728.8	711.4
18°	1334.0	1408.5	1580.4	1600.2	1182.7	927.6	770.8	712.2	690.8
19°	1261.2	1349.9	1539.2	1594.7	1168.5	907.0	742.3	694.7	676.5
20°	1209.7	1291.3	1498.8	1585.9	1153.4	893.6	727.2	674.9	658.3
21°	1123.3	1223.1	1458.4	1574.1	1137.6	870.6	706.6	657.5	639.3
22.5°	1035.4	1127.3	1383.9	1554.3	1111.4	842.1	683.7	636.1	609.2
23°	1001.3	1104.3	1361.0	1548.7	1102.7	835.0	676.5	626.6	602.9
24°	928.4	1035.4	1313.4	1531.3	1083.7	811.2	663.1	607.6	591.0
25°	831.8	976.8	1269.1	1513.1	1067.9	793.8	649.6	592.6	571.2
26°	722.5	896.7	1228.7	1490.9	1045.7	770.0	631.4	578.3	548.2
27°	655.1	827.8	1174.0	1467.1	1029.8	752.6	616.3	556.9	535.5
28°	601.3	719.3	1124.9	1444.1	1010.8	731.2	606.0	541.9	516.5
29°	542.6	659.9	1067.1	1413.3	990.2	706.6	589.4	526.8	499.9
30°	508.6	596.5	1017.2	1390.3	965.7	690.0	569.6	511.7	484.8
32.5°	446.8	491.9	881.7	1324.5	918.9	642.5	537.1	470.6	447.6
35°	414.3	438.1	709.0	1247.7	865.9	602.9	499.9	436.5	415.9
37.5°	389.8	404.0	585.4	1165.3	812.0	568.0	465.8	404.8	385.0
40°	365.2	376.3	484.8	1086.1	759.7	533.9	432.5	372.3	357.3
42.5°	343.0	351.7	420.6	1007.7	705.8	499.1	400.1	347.0	333.5
45°	318.5	326.4	383.4	912.6	652.0	463.4	369.9	319.2	311.3
47.5°	297.9	303.4	347.8	827.8	598.9	429.4	339.1	297.1	291.5
50°	275.7	282.8	317.7	733.6	550.6	396.1	312.9	277.3	272.5
52.5°	254.3	257.5	292.3	639.3	499.9	363.6	285.2	257.5	254.3
55°	225.8	238.4	262.2	542.6	449.2	333.5	256.7	236.9	234.5
57.5°	193.3	209.9	235.3	455.5	401.6	300.2	233.7	217.8	207.6
60°	155.3	175.1	208.3	378.7	359.7	270.1	209.9	185.4	172.7
62.5°	136.3	142.6	183.8	316.9	316.9	241.6	186.2	159.2	153.7
65°	118.8	123.6	157.6	262.2	275.7	209.9	164.8	137.8	133.1



TEST NUMBER: P735929

CATALOG NUMBER: S122RDR-S675D927-X4F0-XX-UDD-W-W

**CANDELA DISTRIBUTION (continued):**

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°
67.5°	103.8	107.7	120.4	218.6	237.7	183.0	136.3	120.4	114.9
70°	88.7	91.9	103.0	178.2	202.8	156.1	114.9	103.0	99.0
72.5°	75.3	78.4	84.8	133.9	166.4	129.9	96.6	87.9	84.8
75°	62.6	64.2	70.5	99.8	133.9	103.8	77.6	72.1	70.5
77.5°	50.7	51.5	55.5	71.3	103.8	79.2	62.6	57.8	57.0
80°	38.8	39.6	42.8	51.5	76.0	57.0	46.7	44.4	42.8
82.5°	27.7	28.5	30.1	34.9	51.5	38.8	33.3	32.5	30.1
85°	17.4	17.4	19.0	21.4	29.3	22.2	20.6	19.8	19.0
87.5°	7.9	7.9	8.7	8.7	13.5	9.5	9.5	8.7	7.9
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)