

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: P735925

Luminaire Tested: S122RDR-S675D830-X4F0-XX-UDD-W-W

Issue Date: 1/24/2024

Test Information

Test Method: LM-79-2019
Report Number: P735925
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-S675D830-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: 2685.8 lumens
Efficiency: N/A
Efficacy: 102.1 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

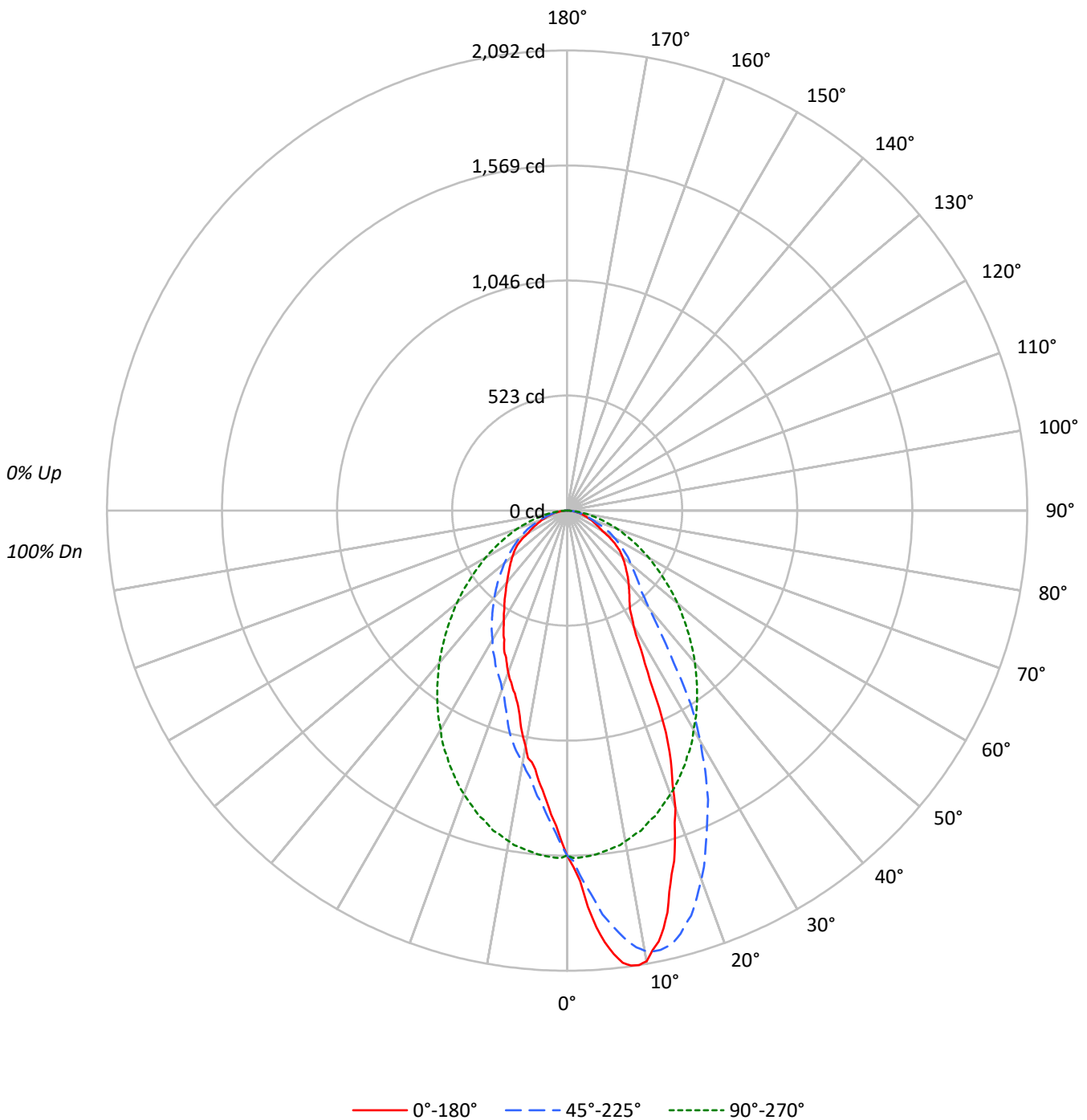
Input Watts (W): 26.3
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Luminous Intensity Polar Plot



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COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:

RF	20					20					20					20					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	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°	30127	30127	30127	30127	30127
5°	38009	35554	30243	25697	24607
10°	40601	39645	29784	22738	21247
15°	35711	39632	28997	20387	17706
20°	29441	36477	28070	17700	16022
25°	20990	32025	26945	16392	14413
30°	13430	26860	25502	15041	12802
35°	11566	19795	24173	13955	11610
40°	10902	14473	22680	12912	10666
45°	10300	12401	21086	11966	10069
50°	9808	11303	19589	11133	9695
55°	9001	10456	17908	10234	9350
60°	7100	9530	16450	9603	7900
65°	6431	8532	14918	8914	7200
70°	5935	6884	13561	7682	6620
75°	5533	6231	11830	6862	6231
80°	5114	5634	10018	6154	5634
85°	4565	4984	7697	5403	4984

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 67.5°
 Vertical Angle: 45°
 Luminance: 29515 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	152.0	5.7
10°-20°	408.5	15.2
20°-30°	512.4	19.1
30°-40°	488.2	18.2
40°-50°	430.7	16.0
50°-60°	338.8	12.6
60°-70°	216.2	8.0
70°-80°	109.9	4.1
80°-90°	29.1	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°	1072.9	39.9
0°-40°	1561.1	58.1
0°-60°	2330.5	86.8
0°-90°	2685.8	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2685.8	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	1567	1567	1567	1567	1567	
5°	1970	1843	1567	1332	1275	191
15°	1795	1992	1457	1024	890	497
25°	990	1510	1270	773	680	446
35°	493	844	1030	595	495	313
45°	379	456	776	440	370	294
55°	269	312	534	305	279	236
65°	141	188	328	196	158	141
75°	74	84	159	92	84	79
85°	21	23	35	24	23	23
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°	1567.4	1567.4	1567.4	1567.4	1567.4	1567.4	1567.4	1567.4	1567.4
1°	1620.2	1627.8	1592.9	1596.7	1579.7	1549.5	1520.3	1523.1	1502.4
2°	1685.3	1705.1	1657.0	1627.8	1578.8	1526.0	1467.5	1460.0	1434.6
3°	1803.1	1793.7	1714.5	1655.1	1575.0	1495.8	1422.3	1405.3	1383.7
4°	1898.3	1870.0	1772.9	1690.0	1573.1	1460.9	1378.0	1348.8	1327.1
5°	1969.9	1934.1	1842.7	1716.4	1567.4	1441.1	1331.8	1298.8	1275.3
6°	2027.4	2000.1	1887.9	1740.9	1559.9	1411.9	1304.5	1260.2	1235.7
7°	2071.7	2049.1	1934.1	1773.9	1553.3	1382.7	1261.1	1214.9	1185.7
8°	2088.7	2078.3	1976.5	1797.4	1545.8	1362.0	1222.5	1181.0	1154.6
9°	2091.5	2092.4	2010.4	1820.1	1539.2	1324.3	1195.1	1152.7	1138.6
10°	2080.2	2088.7	2031.2	1845.5	1526.0	1305.4	1165.0	1124.5	1088.6
11°	2035.9	2073.6	2041.5	1862.5	1514.7	1275.3	1138.6	1085.8	1050.0
12°	2002.9	2038.7	2042.5	1884.1	1501.5	1261.1	1116.0	1045.3	1007.6
13°	1948.2	1985.9	2033.1	1889.8	1493.9	1226.2	1087.7	1003.8	957.6
14°	1883.2	1943.5	2018.0	1902.1	1475.1	1196.1	1059.4	945.4	918.0
15°	1794.6	1880.4	1991.6	1906.8	1457.2	1175.4	1024.5	916.2	889.8
16°	1721.1	1818.2	1955.8	1906.8	1445.9	1147.1	986.8	890.7	864.3
17°	1665.5	1744.6	1926.6	1907.7	1427.0	1127.3	949.1	867.1	846.4
18°	1587.2	1675.8	1880.4	1903.9	1407.2	1103.7	917.1	847.3	821.9
19°	1500.5	1606.1	1831.4	1897.3	1390.3	1079.2	883.2	826.6	804.9
20°	1439.3	1536.3	1783.3	1887.0	1372.3	1063.2	865.3	803.0	783.3
21°	1336.5	1455.3	1735.2	1872.8	1353.5	1035.9	840.7	782.3	760.6
22.5°	1231.9	1341.2	1646.6	1849.3	1322.4	1001.9	813.4	756.9	724.8
23°	1191.4	1313.9	1619.3	1842.7	1312.0	993.4	804.9	745.6	717.3
24°	1104.7	1231.9	1562.7	1821.9	1289.4	965.2	788.9	722.9	703.1
25°	989.7	1162.2	1510.0	1800.3	1270.5	944.4	772.9	705.0	679.6
26°	859.6	1067.0	1461.9	1773.9	1244.2	916.2	751.2	688.1	652.2
27°	779.5	985.0	1396.8	1745.6	1225.3	895.4	733.3	662.6	637.2
28°	715.4	855.8	1338.4	1718.3	1202.7	870.0	721.0	644.7	614.5
29°	645.6	785.1	1269.6	1681.5	1178.2	840.7	701.3	626.8	594.7
30°	605.1	709.7	1210.2	1654.2	1149.0	821.0	677.7	608.9	576.8
32.5°	531.6	585.3	1049.1	1575.9	1093.3	764.4	639.0	559.9	532.5
35°	492.9	521.2	843.6	1484.5	1030.2	717.3	594.7	519.3	494.8
37.5°	463.7	480.7	696.5	1386.5	966.1	675.8	554.2	481.6	458.1
40°	434.5	447.7	576.8	1292.2	903.9	635.3	514.6	443.0	425.1
42.5°	408.1	418.5	500.5	1198.9	839.8	593.8	476.0	412.8	396.8
45°	378.9	388.3	456.2	1085.8	775.7	551.4	440.2	379.8	370.4
47.5°	354.4	361.0	413.8	985.0	712.6	510.9	403.4	353.5	346.9
50°	328.0	336.5	378.0	872.8	655.1	471.3	372.3	329.9	324.2
52.5°	302.6	306.3	347.8	760.6	594.7	432.6	339.3	306.3	302.6
55°	268.6	283.7	312.0	645.6	534.4	396.8	305.4	281.8	279.0
57.5°	230.0	249.8	279.9	542.0	477.9	357.2	278.1	259.2	246.9
60°	184.7	208.3	247.9	450.5	427.9	321.4	249.8	220.6	205.5
62.5°	162.1	169.7	218.7	377.0	377.0	287.5	221.5	189.5	182.9
65°	141.4	147.0	187.6	312.0	328.0	249.8	196.0	164.0	158.3



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°
67.5°	123.5	128.2	143.3	260.1	282.8	217.7	162.1	143.3	136.7
70°	105.6	109.3	122.5	212.1	241.3	185.7	136.7	122.5	117.8
72.5°	89.5	93.3	100.9	159.3	197.9	154.6	115.0	104.6	100.9
75°	74.5	76.3	83.9	118.8	159.3	123.5	92.4	85.8	83.9
77.5°	60.3	61.3	66.0	84.8	123.5	94.3	74.5	68.8	67.9
80°	46.2	47.1	50.9	61.3	90.5	67.9	55.6	52.8	50.9
82.5°	33.0	33.9	35.8	41.5	61.3	46.2	39.6	38.6	35.8
85°	20.7	20.7	22.6	25.4	34.9	26.4	24.5	23.6	22.6
87.5°	9.4	9.4	10.4	10.4	16.0	11.3	11.3	10.4	9.4
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)