

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: P735930

Luminaire Tested: S122RDR-S675D930-X4F0-XX-UDD-W-W

Issue Date: 1/24/2024

Test Information

Test Method: LM-79-2019
Report Number: P735930
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-S675D930-X4F0-XX-UDD-W-W
Description: DEFINE 2 REGRESSED DIRECT RECESSED WITH WALL WASH OPTIC
Light Source: 3000K CCT, 90 CRI LEDS
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 2323.2 lumens
Efficiency: N/A
Efficacy: 88.3 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

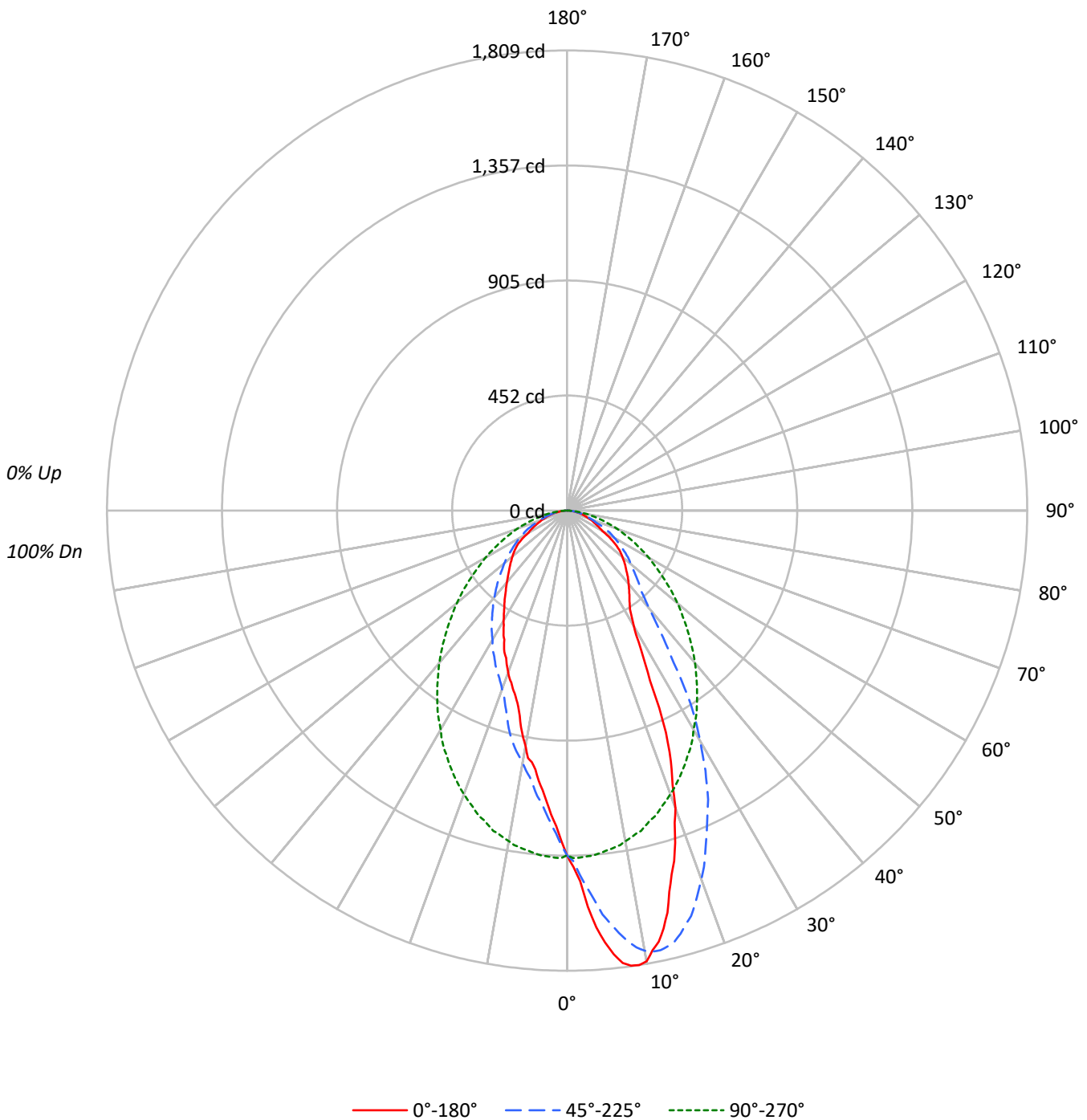
Input Watts (W): 26.3
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Luminous Intensity Polar Plot





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COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:

RF	20					20					20					20					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	
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°	26060	26060	26060	26060	26060
5°	32878	30754	26160	22227	21284
10°	35120	34293	25763	19668	18380
15°	30890	34281	25083	17635	15315
20°	25466	31552	24282	15308	13858
25°	18156	27700	23308	14178	12466
30°	11617	23234	22057	13011	11075
35°	10005	17122	20910	12073	10043
40°	9432	12521	19619	11171	9226
45°	8911	10726	18240	10349	8709
50°	8483	9775	16943	9629	8388
55°	7788	9045	15492	8854	8086
60°	6143	8242	14228	8307	6831
65°	5562	7377	12903	7714	6231
70°	5131	5957	11729	6643	5727
75°	4783	5392	10234	5934	5392
80°	4417	4870	8667	5324	4870
85°	3948	4323	6660	4675	4323

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 67.5°
 Vertical Angle: 45°
 Luminance: 25530 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	131.5	5.7
10°-20°	353.3	15.2
20°-30°	443.2	19.1
30°-40°	422.3	18.2
40°-50°	372.5	16.0
50°-60°	293.1	12.6
60°-70°	187.0	8.0
70°-80°	95.1	4.1
80°-90°	25.2	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°	928.0	39.9
0°-40°	1350.3	58.1
0°-60°	2015.9	86.8
0°-90°	2323.2	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2323.2	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	1356	1356	1356	1356	1356	
5°	1704	1594	1356	1152	1103	166
15°	1552	1723	1260	886	770	430
25°	856	1306	1099	668	588	386
35°	426	730	891	514	428	271
45°	328	395	671	381	320	254
55°	232	270	462	264	241	204
65°	122	162	284	170	137	122
75°	64	73	138	80	73	68
85°	18	20	30	21	20	20
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°	1355.8	1355.8	1355.8	1355.8	1355.8	1355.8	1355.8	1355.8	1355.8
1°	1401.5	1408.0	1377.9	1381.1	1366.4	1340.4	1315.1	1317.5	1299.6
2°	1457.8	1474.9	1433.3	1408.0	1365.6	1320.0	1269.4	1262.9	1240.9
3°	1559.7	1551.5	1483.0	1431.7	1362.4	1293.9	1230.3	1215.6	1196.9
4°	1642.0	1617.6	1533.6	1461.8	1360.7	1263.7	1192.0	1166.7	1147.9
5°	1704.0	1673.0	1593.9	1484.7	1355.8	1246.6	1152.0	1123.5	1103.1
6°	1753.7	1730.1	1633.0	1505.9	1349.3	1221.3	1128.4	1090.1	1068.9
7°	1792.0	1772.5	1673.0	1534.4	1343.6	1196.0	1090.9	1050.9	1025.6
8°	1806.7	1797.7	1709.7	1554.8	1337.1	1178.1	1057.4	1021.6	998.7
9°	1809.1	1810.0	1739.0	1574.3	1331.4	1145.5	1033.8	997.1	984.9
10°	1799.4	1806.7	1757.0	1596.4	1320.0	1129.2	1007.7	972.7	941.7
11°	1761.0	1793.7	1765.9	1611.0	1310.2	1103.1	984.9	939.2	908.2
12°	1732.5	1763.5	1766.8	1629.8	1298.8	1090.9	965.3	904.2	871.6
13°	1685.2	1717.8	1758.6	1634.7	1292.2	1060.7	940.9	868.3	828.3
14°	1629.0	1681.1	1745.6	1645.3	1275.9	1034.6	916.4	817.7	794.1
15°	1552.3	1626.5	1722.7	1649.3	1260.5	1016.7	886.2	792.5	769.6
16°	1488.7	1572.7	1691.7	1649.3	1250.7	992.2	853.6	770.5	747.6
17°	1440.6	1509.1	1666.5	1650.2	1234.4	975.1	821.0	750.1	732.1
18°	1373.0	1449.6	1626.5	1646.9	1217.2	954.7	793.3	733.0	710.9
19°	1298.0	1389.3	1584.1	1641.2	1202.6	933.5	763.9	715.0	696.3
20°	1245.0	1328.9	1542.5	1632.2	1187.1	919.7	748.4	694.6	677.5
21°	1156.1	1258.8	1501.0	1620.0	1170.8	896.0	727.2	676.7	657.9
22.5°	1065.6	1160.2	1424.3	1599.6	1143.9	866.7	703.6	654.7	627.0
23°	1030.5	1136.5	1400.7	1593.9	1134.9	859.3	696.3	644.9	620.4
24°	955.5	1065.6	1351.8	1576.0	1115.3	834.9	682.4	625.3	608.2
25°	856.1	1005.3	1306.1	1557.2	1099.0	816.9	668.5	609.8	587.8
26°	743.6	922.9	1264.5	1534.4	1076.2	792.5	649.8	595.2	564.2
27°	674.3	852.0	1208.3	1509.9	1059.9	774.5	634.3	573.2	551.1
28°	618.8	740.3	1157.7	1486.3	1040.3	752.5	623.7	557.7	531.6
29°	558.5	679.1	1098.2	1454.5	1019.1	727.2	606.6	542.2	514.5
30°	523.4	613.9	1046.8	1430.8	993.8	710.1	586.2	526.7	499.0
32.5°	459.8	506.3	907.4	1363.2	945.7	661.2	552.8	484.3	460.6
35°	426.4	450.9	729.7	1284.1	891.1	620.4	514.5	449.2	428.0
37.5°	401.1	415.8	602.5	1199.3	835.7	584.6	479.4	416.6	396.2
40°	375.9	387.3	499.0	1117.8	781.9	549.5	445.2	383.2	367.7
42.5°	353.0	362.0	432.9	1037.1	726.4	513.6	411.7	357.1	343.2
45°	327.8	335.9	394.6	939.2	671.0	476.9	380.7	328.6	320.4
47.5°	306.6	312.3	357.9	852.0	616.4	441.9	348.9	305.7	300.0
50°	283.7	291.1	326.9	755.0	566.6	407.6	322.0	285.4	280.5
52.5°	261.7	265.0	300.8	657.9	514.5	374.2	293.5	265.0	261.7
55°	232.4	245.4	269.9	558.5	462.3	343.2	264.2	243.8	241.3
57.5°	198.9	216.1	242.1	468.8	413.4	309.0	240.5	224.2	213.6
60°	159.8	180.2	214.4	389.7	370.1	278.0	216.1	190.8	177.7
62.5°	140.2	146.8	189.1	326.1	326.1	248.7	191.6	163.9	158.2
65°	122.3	127.2	162.2	269.9	283.7	216.1	169.6	141.9	137.0



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°
67.5°	106.8	110.9	123.9	225.0	244.6	188.3	140.2	123.9	118.2
70°	91.3	94.6	106.0	183.4	208.7	160.6	118.2	106.0	101.9
72.5°	77.5	80.7	87.2	137.8	171.2	133.7	99.5	90.5	87.2
75°	64.4	66.0	72.6	102.7	137.8	106.8	79.9	74.2	72.6
77.5°	52.2	53.0	57.1	73.4	106.8	81.5	64.4	59.5	58.7
80°	39.9	40.8	44.0	53.0	78.3	58.7	48.1	45.7	44.0
82.5°	28.5	29.4	31.0	35.9	53.0	39.9	34.2	33.4	31.0
85°	17.9	17.9	19.6	22.0	30.2	22.8	21.2	20.4	19.6
87.5°	8.2	8.2	9.0	9.0	13.9	9.8	9.8	9.0	8.2
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)