

Cooper Lighting Solutions Photometric Lab
1121 Highway 74 South
Peachtree City, GA 30269



Scaled data based on original data using
LM-79-2024 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: S122RDRP-S675D930-X4F0-XX-UDD-W-W

Issue Date: 1/24/2024

Test Information

Test Method: LM-79-2024
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: S122RDRP-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

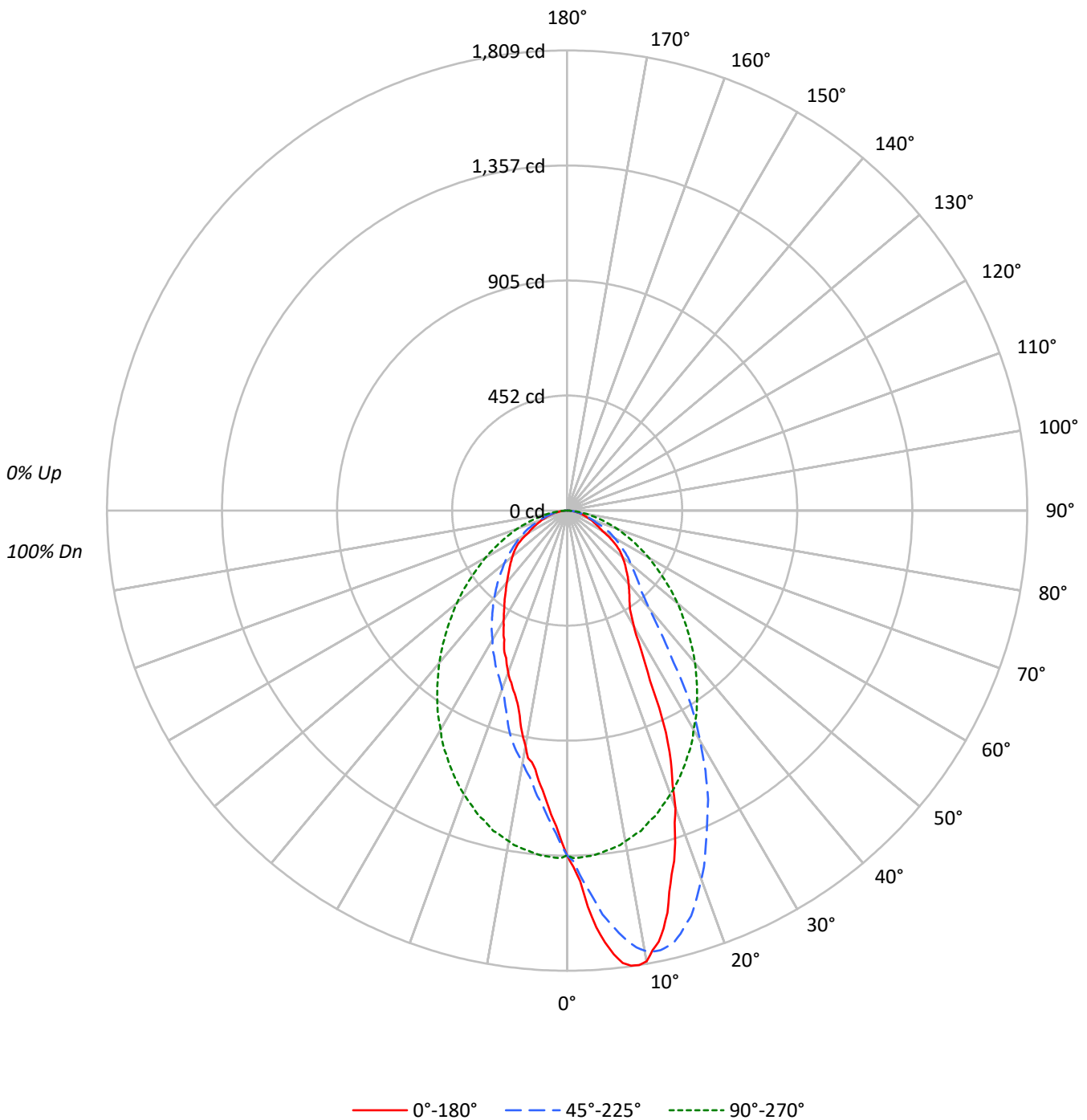
Lumens per Lamp: N/A
Luminaire Lumens: 2323.2 lumens
Efficiency: N/A
Efficacy: 88.3 lumens/watt
Spacing Criteria (0/90/45): 0.82 / 1.11 / 1
Luminous Opening: Rectangular (W 4' x L: 0.14' x H: 0')
CIE Type: Direct

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				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°	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



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CIE UGR TABLE:

Reflectances:											
Ceiling		0.7	0.7	0.5	0.5	0.3	0.7	0.7	0.5	0.5	0.3
Wall		0.5	0.3	0.5	0.3	0.3	0.5	0.3	0.5	0.3	0.3
Reference plane		0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
Room dimensions		Viewed crosswise					Viewed endwise				
X=2H	Y=2H	17.76	19.23	18.13	19.54	19.86	20.46	21.93	20.82	22.24	22.56
	3H	18.88	20.19	19.26	20.52	20.88	21.90	23.21	22.28	23.54	23.90
	4H	19.32	20.55	19.72	20.90	21.28	22.40	23.63	22.80	23.98	24.36
	6H	19.67	20.80	20.08	21.17	21.56	22.73	23.86	23.14	24.23	24.62
	8H	19.78	20.86	20.21	21.25	21.65	22.82	23.90	23.24	24.29	24.69
	12H	19.85	20.89	20.29	21.27	21.70	22.86	23.90	23.29	24.28	24.71
4H	2H	18.93	20.16	19.33	20.51	20.89	20.91	22.14	21.31	22.49	22.87
	3H	20.16	21.18	20.57	21.58	21.98	22.57	23.59	22.98	23.99	24.39
	4H	20.64	21.56	21.07	21.97	22.41	23.21	24.12	23.64	24.54	24.98
	6H	21.04	21.84	21.50	22.28	22.74	23.66	24.46	24.12	24.90	25.36
	8H	21.18	21.92	21.64	22.36	22.83	23.79	24.53	24.25	24.98	25.45
	12H	21.27	21.94	21.76	22.42	22.89	23.87	24.53	24.35	25.01	25.48
8H	4H	21.04	21.78	21.51	22.23	22.70	23.32	24.06	23.78	24.51	24.98
	6H	21.53	22.15	22.03	22.64	23.12	23.88	24.49	24.38	24.99	25.47
	8H	21.72	22.27	22.24	22.78	23.27	24.08	24.63	24.60	25.14	25.63
	12H	21.88	22.36	22.39	22.86	23.42	24.23	24.71	24.74	25.21	25.77
12H	4H	21.09	21.75	21.57	22.23	22.70	23.31	23.97	23.79	24.45	24.92
	6H	21.60	22.15	22.12	22.66	23.15	23.88	24.43	24.39	24.94	25.43
	8H	21.84	22.33	22.35	22.82	23.39	24.12	24.61	24.64	25.10	25.67