

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: P735886

Luminaire Tested: S122DR-S675D935-X4F0-XX-UDD-W-W

Issue Date: 1/24/2024

Test Information

Test Method: LM-79-2019
Report Number: P735886
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2308-143-1)
Test Lab: INNOVATION CENTER
Issue Date: 1/24/2024
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: NEO-RAY
Catalog Number: S122DR-S675D935-X4F0-XX-UDD-W-W
Description: DEFINE 2 DIRECT RECESSED WITH WALL WASH OPTIC
Light Source: 3500K CCT, 90 CRI LEDS
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 2548.9 lumens
Efficiency: N/A
Efficacy: 98.0 lumens/watt
Spacing Criteria (0/90/45): 0.9 / 1.11 / 1.12
Luminous Opening: Rectangular (W 4' x L: 0.14' x H: 0')
CIE Type: Direct

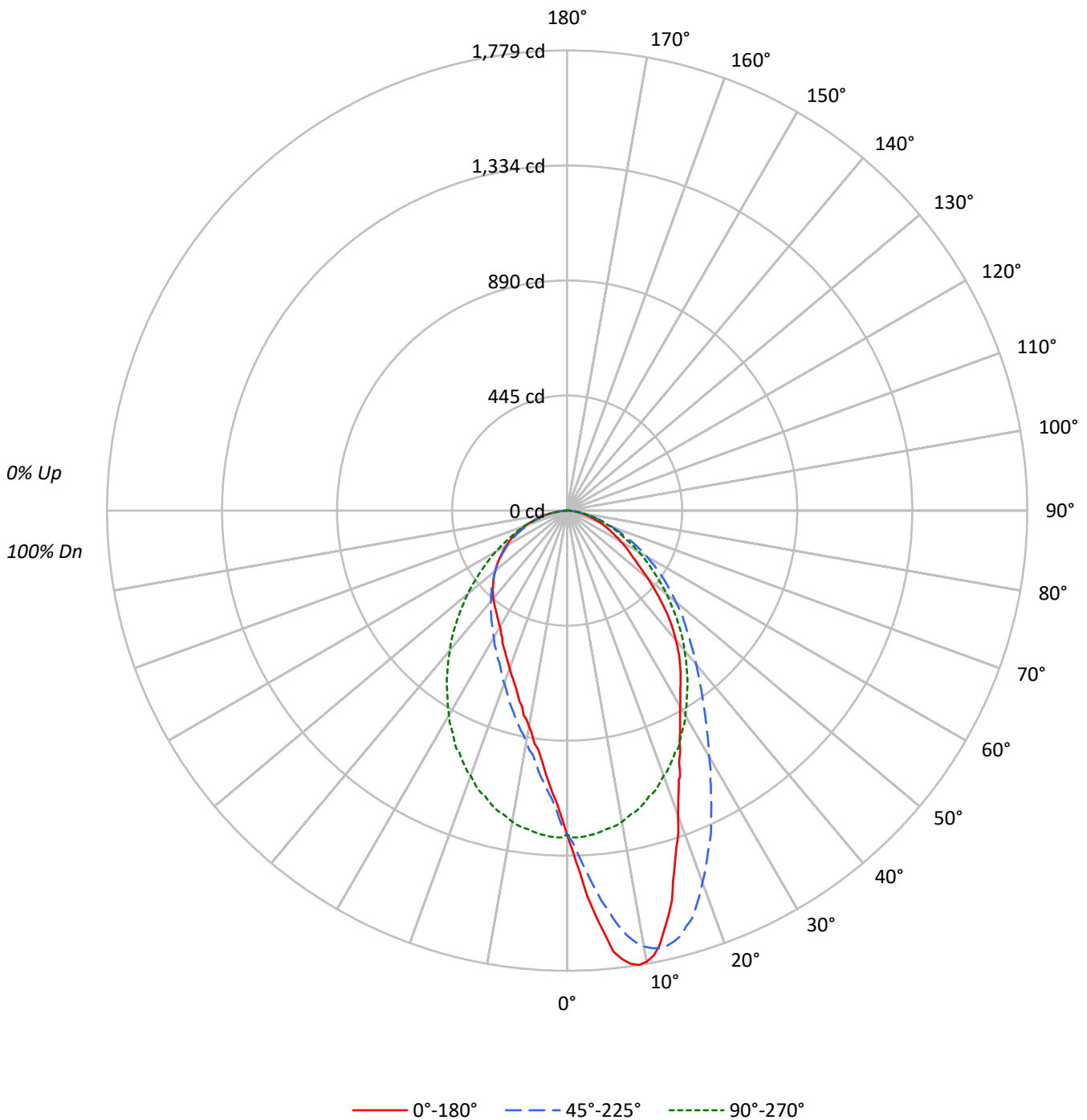
Input Watts (W): 26
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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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	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	102	98	107	103	100	97	99	96	94	95	93	91	92	90	88	86					86			
2	101	94	87	82	98	92	86	81	88	83	79	85	81	78	82	79	76	74					74			
3	93	83	76	70	91	82	75	69	79	73	68	76	71	67	74	69	66	64					64			
4	86	75	67	60	83	73	66	60	71	64	59	69	63	58	67	62	58	56					56			
5	79	67	59	53	77	66	58	53	64	57	52	62	56	52	61	55	51	49					49			
6	74	61	53	47	72	60	52	47	59	52	46	57	51	46	55	50	46	44					44			
7	69	56	48	42	67	55	47	42	54	47	42	52	46	41	51	45	41	39					39			
8	64	51	43	38	63	51	43	38	50	43	38	48	42	37	47	41	37	35					35			
9	60	48	40	35	59	47	40	34	46	39	34	45	39	34	44	38	34	32					32			
10	57	44	37	32	55	44	36	32	43	36	31	42	36	31	41	35	31	30					30			

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°	135°	180°
0°	24080	24080	24080	24080	24080
5°	31582	29189	24205	20300	19370
10°	34568	33409	23847	17746	16535
15°	31097	33839	23199	16019	14666
20°	25661	31296	22314	14529	13298
25°	21932	27921	21529	13440	12326
30°	19396	24383	20295	12593	11541
35°	17941	21597	19032	12000	11214
40°	16420	19486	17715	11494	11148
45°	14464	17789	16383	11140	11001
50°	12179	16402	15011	10840	10864
55°	10244	15090	13562	10472	10677
60°	9234	13636	12313	10160	10460
65°	8382	11984	10966	9674	10261
70°	7548	10358	9869	8953	9728
75°	6587	8763	8444	8117	8890
80°	5523	6863	6863	7051	7438
85°	4168	4940	5117	5513	5315

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 67.5°
 Vertical Angle: 45°
 Luminance: 26120 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	123.3	4.8
10°-20°	338.4	13.3
20°-30°	443.7	17.4
30°-40°	469.0	18.4
40°-50°	435.4	17.1
50°-60°	348.5	13.7
60°-70°	238.4	9.4
70°-80°	123.0	4.8
80°-90°	29.2	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°	905.4	35.5
0°-40°	1374.4	53.9
0°-60°	2158.3	84.7
0°-90°	2548.9	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2548.9	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	1253	1253	1253	1253	1253	
5°	1637	1513	1254	1052	1004	161
15°	1563	1700	1166	805	737	429
25°	1034	1316	1015	634	581	477
35°	765	920	811	511	478	477
45°	532	654	603	410	405	409
55°	306	450	405	312	319	280
65°	184	264	241	213	226	183
75°	89	118	114	109	120	94
85°	19	22	23	25	24	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°	1252.8	1252.8	1252.8	1252.8	1252.8	1252.8	1252.8	1252.8	1252.8
1°	1321.6	1314.7	1284.6	1286.3	1263.9	1239.0	1215.7	1201.1	1189.0
2°	1399.1	1385.3	1338.0	1314.7	1263.9	1210.6	1162.3	1149.4	1133.1
3°	1493.0	1460.3	1394.8	1339.7	1262.2	1184.7	1118.4	1095.2	1092.6
4°	1568.7	1539.5	1452.5	1365.5	1257.9	1159.8	1084.9	1059.9	1047.8
5°	1636.8	1617.8	1512.8	1398.3	1254.5	1135.7	1052.1	1017.7	1003.9
6°	1715.1	1676.4	1561.0	1431.0	1248.4	1112.4	1022.9	981.5	962.6
7°	1747.0	1722.9	1615.2	1452.5	1240.7	1085.7	985.8	941.1	927.3
8°	1769.3	1759.9	1658.3	1487.8	1237.3	1060.7	953.1	925.6	909.2
9°	1778.8	1771.1	1689.3	1502.4	1231.2	1047.8	936.8	891.1	873.1
10°	1771.1	1774.5	1711.7	1524.8	1221.8	1021.1	909.2	869.6	847.2
11°	1753.0	1761.6	1723.7	1550.7	1209.7	999.6	884.2	843.8	822.3
12°	1718.6	1737.5	1728.9	1568.7	1198.5	980.7	867.0	828.3	809.3
13°	1665.2	1707.4	1725.4	1576.5	1191.6	959.2	845.5	800.7	776.6
14°	1617.0	1660.9	1716.0	1593.7	1179.6	935.0	825.7	780.9	760.3
15°	1562.7	1613.5	1700.5	1598.9	1165.8	915.2	805.0	756.0	737.0
16°	1486.9	1555.0	1672.1	1604.9	1149.4	892.9	786.1	739.6	714.6
17°	1424.1	1497.3	1650.5	1608.3	1140.8	875.6	769.7	714.6	698.3
18°	1366.4	1449.1	1611.8	1605.8	1127.0	855.8	745.6	696.5	681.0
19°	1320.8	1387.9	1573.0	1599.7	1108.1	836.9	727.5	683.6	665.6
20°	1254.5	1332.0	1530.0	1597.1	1090.9	819.7	710.3	665.6	650.1
21°	1199.4	1278.6	1490.4	1588.5	1078.8	803.3	697.4	648.3	634.6
22.5°	1127.0	1196.8	1424.1	1572.2	1052.1	775.8	669.0	632.0	613.0
23°	1118.4	1177.8	1406.9	1567.0	1044.4	769.7	659.5	622.5	607.0
24°	1064.2	1127.0	1366.4	1550.7	1024.6	750.8	644.0	611.3	593.2
25°	1034.1	1085.7	1316.5	1535.2	1015.1	733.6	633.7	596.7	581.2
26°	991.9	1051.3	1271.7	1512.8	994.5	718.1	617.3	583.8	569.1
27°	960.9	1010.8	1225.2	1496.4	970.3	701.7	604.4	570.8	552.8
28°	930.7	979.0	1180.4	1469.7	953.1	683.6	594.9	559.6	542.4
29°	899.7	941.9	1144.3	1449.1	936.8	668.1	580.3	545.0	528.7
30°	873.9	912.7	1098.6	1421.5	914.4	650.1	567.4	534.7	520.0
32.5°	814.5	847.2	1005.6	1356.1	861.0	613.9	536.4	506.3	497.7
35°	764.6	786.1	920.4	1282.9	811.1	575.1	511.4	482.2	477.9
37.5°	712.0	732.7	842.9	1206.3	758.5	539.8	483.0	464.1	460.6
40°	654.4	681.9	776.6	1130.5	706.0	505.4	458.1	443.4	444.3
42.5°	596.7	628.5	712.0	1041.8	656.9	472.7	433.9	423.6	425.3
45°	532.1	572.6	654.4	960.9	602.7	441.7	409.8	404.7	404.7
47.5°	464.9	516.6	604.4	877.4	551.0	410.7	386.6	383.1	384.9
50°	407.3	453.7	548.5	796.4	502.0	382.3	362.5	361.6	363.3
52.5°	350.4	396.9	499.4	720.7	452.0	356.5	339.2	339.2	341.0
55°	305.7	341.8	450.3	641.4	404.7	326.3	312.5	315.1	318.6
57.5°	274.7	298.8	402.1	565.7	360.8	297.0	288.4	290.2	294.5
60°	240.2	259.2	354.7	495.9	320.3	268.6	264.3	267.8	272.1
62.5°	209.2	225.6	310.0	433.1	276.4	241.1	239.4	244.5	248.8
65°	184.3	195.4	263.5	369.4	241.1	213.5	212.7	220.4	225.6



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°
67.5°	158.4	167.0	223.0	309.1	205.8	186.0	186.0	194.6	198.9
70°	134.3	141.2	184.3	254.9	175.6	158.4	159.3	169.6	173.1
72.5°	109.3	115.4	149.8	204.9	142.1	132.6	135.2	143.8	147.2
75°	88.7	93.0	118.0	161.9	113.7	105.9	109.3	117.1	119.7
77.5°	68.0	71.5	87.0	118.8	87.0	82.7	86.1	93.0	93.0
80°	49.9	50.8	62.0	83.5	62.0	59.4	63.7	67.2	67.2
82.5°	32.7	34.4	40.5	53.4	41.3	40.5	42.2	44.8	44.8
85°	18.9	19.8	22.4	29.3	23.2	23.2	25.0	25.0	24.1
87.5°	7.7	8.6	9.5	11.2	10.3	11.2	11.2	9.5	10.3
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)