

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: P735885

Luminaire Tested: S122DR-S675D930-X4F0-XX-UDD-W-W

Issue Date: 1/24/2024

Test Information

Test Method: LM-79-2019
Report Number: P735885
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-S675D930-X4F0-XX-UDD-W-W
Description: DEFINE 2 DIRECT RECESSED WITH WALL WASH OPTIC
Light Source: 3000K CCT, 90 CRI LEDS
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 2413.6 lumens
Efficiency: N/A
Efficacy: 92.8 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

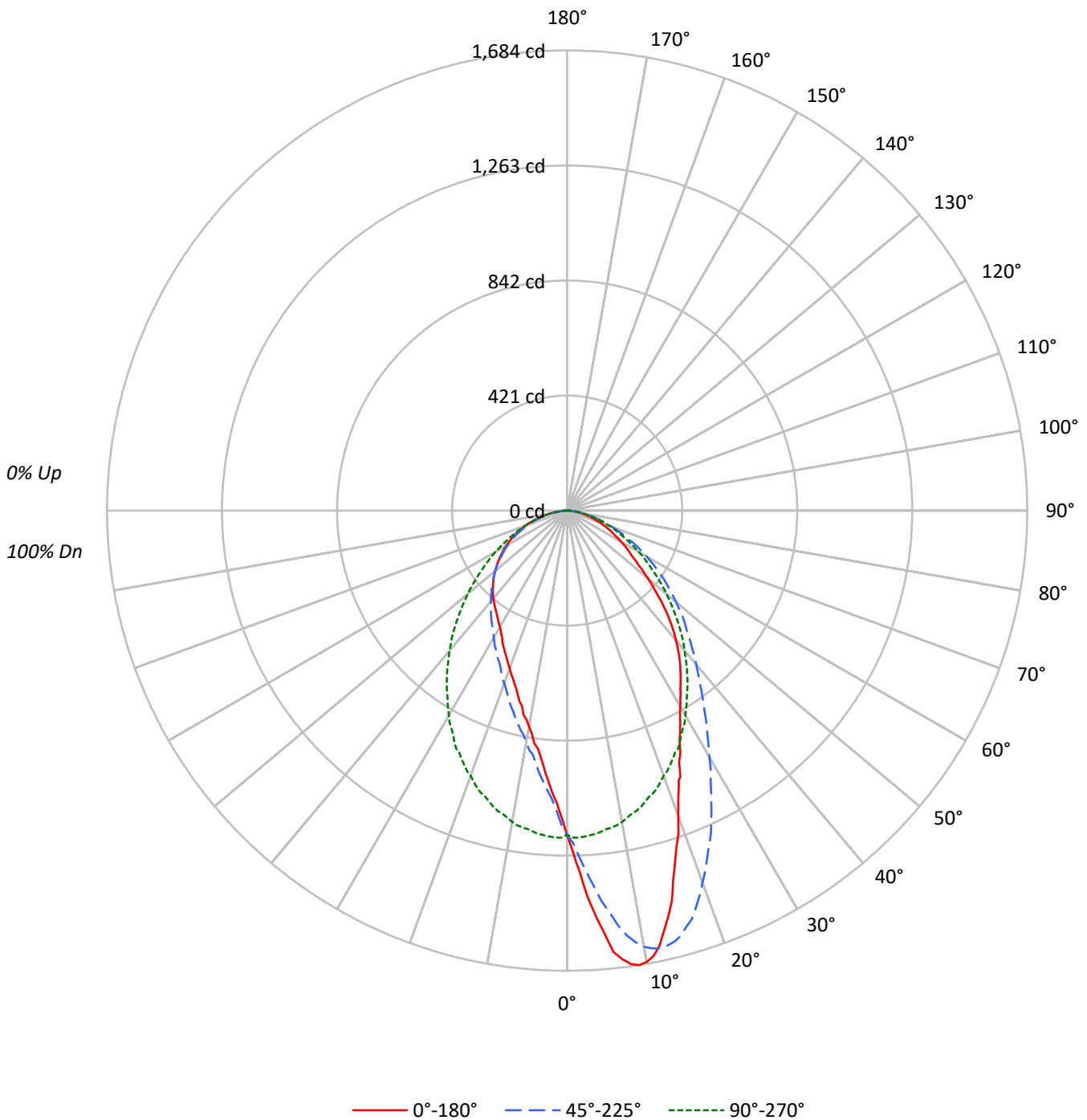
Input Watts (W): 26
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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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	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°	22802	22802	22802	22802	22802
5°	29905	27640	22920	19223	18342
10°	32733	31634	22580	16805	15659
15°	29447	32042	21967	15169	13888
20°	24298	29635	21130	13758	12590
25°	20767	26438	20385	12727	11671
30°	18366	23089	19216	11925	10929
35°	16989	20452	18021	11364	10618
40°	15547	18452	16774	10882	10556
45°	13698	16843	15513	10550	10417
50°	11531	15529	14213	10263	10290
55°	9698	14289	12842	9919	10110
60°	8746	12913	11660	9622	9903
65°	7937	11348	10383	9160	9715
70°	7149	9807	9346	8475	9211
75°	6238	8295	7991	7686	8414
80°	5236	6498	6498	6675	7040
85°	3948	4675	4852	5205	5028

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 67.5°
 Vertical Angle: 45°
 Luminance: 24734 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	116.7	4.8
10°-20°	320.4	13.3
20°-30°	420.2	17.4
30°-40°	444.1	18.4
40°-50°	412.3	17.1
50°-60°	330.0	13.7
60°-70°	225.7	9.4
70°-80°	116.5	4.8
80°-90°	27.7	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°	857.3	35.5
0°-40°	1301.4	53.9
0°-60°	2043.8	84.7
0°-90°	2413.6	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2413.6	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	1186	1186	1186	1186	1186	
5°	1550	1432	1188	996	951	153
15°	1480	1610	1104	762	698	406
25°	979	1247	961	600	550	451
35°	724	872	768	484	452	452
45°	504	620	571	388	383	387
55°	289	426	383	296	302	265
65°	174	250	228	201	214	173
75°	84	112	108	104	113	89
85°	18	21	22	24	23	22
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°	1186.3	1186.3	1186.3	1186.3	1186.3	1186.3	1186.3	1186.3	1186.3
1°	1251.5	1245.0	1216.4	1218.1	1196.9	1173.2	1151.2	1137.3	1125.9
2°	1324.9	1311.8	1267.0	1245.0	1196.9	1146.3	1100.7	1088.4	1072.9
3°	1413.7	1382.7	1320.8	1268.6	1195.2	1121.8	1059.1	1037.1	1034.6
4°	1485.5	1457.8	1375.4	1293.1	1191.1	1098.2	1027.3	1003.6	992.2
5°	1549.9	1531.9	1432.5	1324.0	1187.9	1075.4	996.3	963.7	950.6
6°	1624.1	1587.4	1478.1	1355.0	1182.2	1053.4	968.6	929.4	911.5
7°	1654.2	1631.4	1529.5	1375.4	1174.8	1028.1	933.5	891.1	878.1
8°	1675.4	1666.5	1570.3	1408.8	1171.6	1004.4	902.5	876.4	861.0
9°	1684.4	1677.1	1599.6	1422.7	1165.9	992.2	887.0	843.8	826.7
10°	1677.1	1680.3	1620.8	1443.9	1156.9	966.9	861.0	823.5	802.3
11°	1659.9	1668.1	1632.2	1468.4	1145.5	946.6	837.3	799.0	778.6
12°	1627.3	1645.3	1637.1	1485.5	1134.9	928.6	821.0	784.3	766.4
13°	1576.8	1616.7	1633.9	1492.8	1128.4	908.2	800.6	758.2	735.4
14°	1531.1	1572.7	1624.9	1509.1	1117.0	885.4	781.9	739.5	719.9
15°	1479.8	1527.9	1610.2	1514.0	1103.9	866.7	762.3	715.8	697.9
16°	1408.0	1472.4	1583.3	1519.7	1088.4	845.5	744.4	700.3	676.7
17°	1348.5	1417.8	1562.9	1523.0	1080.3	829.2	728.9	676.7	661.2
18°	1293.9	1372.1	1526.2	1520.5	1067.2	810.4	706.0	659.6	644.9
19°	1250.7	1314.3	1489.5	1514.8	1049.3	792.5	688.9	647.3	630.2
20°	1187.9	1261.3	1448.8	1512.4	1033.0	776.2	672.6	630.2	615.5
21°	1135.7	1210.7	1411.3	1504.2	1021.6	760.7	660.4	613.9	600.9
22.5°	1067.2	1133.3	1348.5	1488.7	996.3	734.6	633.5	598.4	580.5
23°	1059.1	1115.3	1332.2	1483.8	989.0	728.9	624.5	589.5	574.8
24°	1007.7	1067.2	1293.9	1468.4	970.2	710.9	609.8	578.9	561.7
25°	979.2	1028.1	1246.6	1453.7	961.2	694.6	600.1	565.0	550.3
26°	939.2	995.5	1204.2	1432.5	941.7	680.0	584.6	552.8	538.9
27°	909.9	957.2	1160.2	1417.0	918.8	664.5	572.3	540.5	523.4
28°	881.3	927.0	1117.8	1391.7	902.5	647.3	563.4	529.9	513.6
29°	852.0	891.9	1083.5	1372.1	887.0	632.7	549.5	516.1	500.6
30°	827.5	864.2	1040.3	1346.1	865.8	615.5	537.3	506.3	492.4
32.5°	771.3	802.3	952.3	1284.1	815.3	581.3	507.9	479.4	471.2
35°	724.0	744.4	871.6	1214.8	768.0	544.6	484.3	456.6	452.5
37.5°	674.3	693.8	798.2	1142.2	718.3	511.2	457.4	439.4	436.2
40°	619.6	645.7	735.4	1070.5	668.5	478.6	433.7	419.9	420.7
42.5°	565.0	595.2	674.3	986.5	622.1	447.6	410.9	401.1	402.8
45°	503.9	542.2	619.6	909.9	570.7	418.2	388.1	383.2	383.2
47.5°	440.3	489.2	572.3	830.8	521.8	388.9	366.1	362.8	364.4
50°	385.6	429.7	519.3	754.2	475.3	362.0	343.2	342.4	344.1
52.5°	331.8	375.9	472.9	682.4	428.0	337.5	321.2	321.2	322.9
55°	289.4	323.7	426.4	607.4	383.2	309.0	296.0	298.4	301.7
57.5°	260.1	282.9	380.7	535.7	341.6	281.3	273.1	274.8	278.8
60°	227.5	245.4	335.9	469.6	303.3	254.4	250.3	253.6	257.6
62.5°	198.1	213.6	293.5	410.1	261.7	228.3	226.7	231.5	235.6
65°	174.5	185.1	249.5	349.8	228.3	202.2	201.4	208.7	213.6



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°
67.5°	150.0	158.2	211.2	292.7	194.9	176.1	176.1	184.3	188.3
70°	127.2	133.7	174.5	241.3	166.3	150.0	150.8	160.6	163.9
72.5°	103.5	109.2	141.9	194.0	134.5	125.6	128.0	136.2	139.4
75°	84.0	88.1	111.7	153.3	107.6	100.3	103.5	110.9	113.3
77.5°	64.4	67.7	82.3	112.5	82.3	78.3	81.5	88.1	88.1
80°	47.3	48.1	58.7	79.1	58.7	56.3	60.3	63.6	63.6
82.5°	31.0	32.6	38.3	50.5	39.1	38.3	39.9	42.4	42.4
85°	17.9	18.8	21.2	27.7	22.0	22.0	23.6	23.6	22.8
87.5°	7.3	8.2	9.0	10.6	9.8	10.6	10.6	9.0	9.8
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)