

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: P735884

Luminaire Tested: S122DR-S675D927-X4F0-XX-UDD-W-W

Issue Date: 1/24/2024

Test Information

Test Method: LM-79-2019
Report Number: P735884
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-S675D927-X4F0-XX-UDD-W-W
Description: DEFINE 2 DIRECT RECESSED WITH WALL WASH OPTIC
Light Source: 2700K CCT, 90 CRI LEDS
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 2345.2 lumens
Efficiency: N/A
Efficacy: 90.2 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

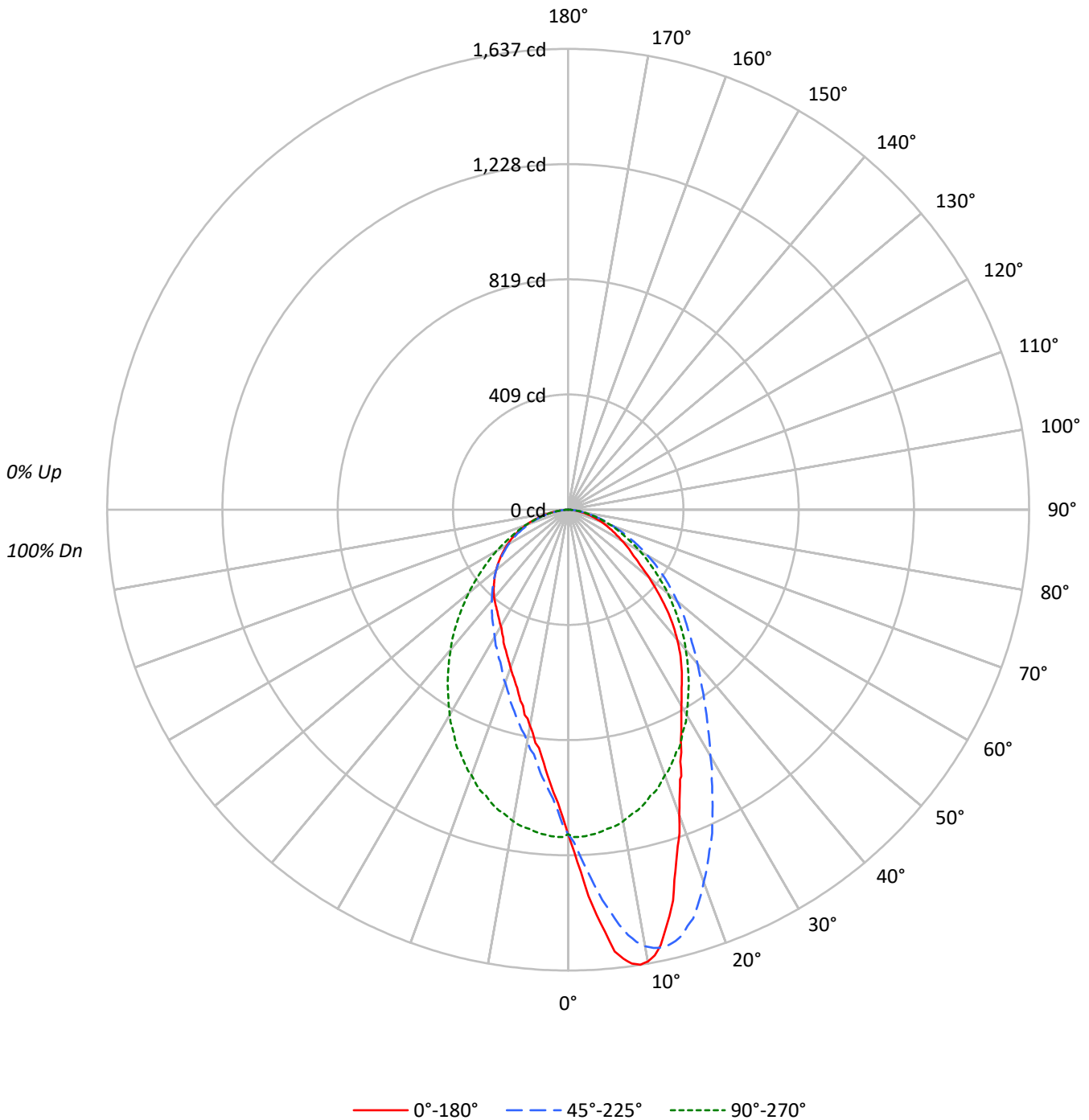
Input Watts (W): 26
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°	135°	180°
0°	22154	22154	22154	22154	22154
5°	29056	26856	22270	18677	17823
10°	31804	30739	21940	16327	15214
15°	28611	31134	21344	14739	13494
20°	23609	28794	20531	13367	12234
25°	20178	25688	19809	12364	11340
30°	17847	22435	18673	11586	10620
35°	16508	19870	17509	11043	10317
40°	15108	17928	16300	10574	10257
45°	13309	16367	15073	10251	10120
50°	11205	15089	13809	9973	9997
55°	9423	13884	12476	9638	9822
60°	8496	12548	11329	9349	9622
65°	7709	11025	10088	8901	9442
70°	6946	9526	9082	8239	8947
75°	6060	8058	7768	7471	8177
80°	5081	6309	6309	6486	6841
85°	3837	4543	4720	5072	4896

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 67.5°
 Vertical Angle: 45°
 Luminance: 24032 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	113.4	4.8
10°-20°	311.3	13.3
20°-30°	408.3	17.4
30°-40°	431.5	18.4
40°-50°	400.6	17.1
50°-60°	320.7	13.7
60°-70°	219.3	9.4
70°-80°	113.2	4.8
80°-90°	26.9	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°	833.0	35.5
0°-40°	1264.5	53.9
0°-60°	1985.8	84.7
0°-90°	2345.2	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2345.2	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	1153	1153	1153	1153	1153	
5°	1506	1392	1154	968	924	148
15°	1438	1565	1073	741	678	395
25°	951	1211	934	583	535	438
35°	704	847	746	471	440	439
45°	490	602	554	377	372	376
55°	281	414	372	288	293	258
65°	170	242	222	196	208	168
75°	82	108	105	101	110	87
85°	17	21	21	23	22	21
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°	1152.6	1152.6	1152.6	1152.6	1152.6	1152.6	1152.6	1152.6	1152.6
1°	1216.0	1209.7	1181.9	1183.5	1162.9	1139.9	1118.6	1105.1	1094.0
2°	1287.3	1274.6	1231.0	1209.7	1162.9	1113.8	1069.4	1057.6	1042.5
3°	1373.6	1343.5	1283.3	1232.6	1161.3	1090.0	1029.0	1007.7	1005.3
4°	1443.4	1416.4	1336.4	1256.4	1157.4	1067.1	998.1	975.2	964.1
5°	1505.9	1488.5	1391.9	1286.5	1154.2	1044.9	968.0	936.4	923.7
6°	1578.0	1542.4	1436.2	1316.6	1148.7	1023.5	941.1	903.1	885.7
7°	1607.3	1585.2	1486.1	1336.4	1141.5	998.9	907.0	865.9	853.2
8°	1627.9	1619.2	1525.7	1368.9	1138.4	976.0	876.9	851.6	836.5
9°	1636.6	1629.5	1554.3	1382.4	1132.8	964.1	861.9	819.9	803.3
10°	1629.5	1632.7	1574.9	1403.0	1124.1	939.5	836.5	800.1	779.5
11°	1612.9	1620.8	1585.9	1426.7	1113.0	919.7	813.6	776.3	756.5
12°	1581.2	1598.6	1590.7	1443.4	1102.7	902.3	797.7	762.1	744.6
13°	1532.1	1570.9	1587.5	1450.5	1096.4	882.5	777.9	736.7	714.5
14°	1487.7	1528.1	1578.8	1466.3	1085.3	860.3	759.7	718.5	699.5
15°	1437.8	1484.5	1564.6	1471.1	1072.6	842.1	740.7	695.5	678.1
16°	1368.1	1430.7	1538.4	1476.6	1057.6	821.5	723.3	680.5	657.5
17°	1310.3	1377.6	1518.6	1479.8	1049.6	805.6	708.2	657.5	642.5
18°	1257.2	1333.2	1483.0	1477.4	1037.0	787.4	686.0	640.9	626.6
19°	1215.2	1277.0	1447.3	1471.9	1019.5	770.0	669.4	629.0	612.4
20°	1154.2	1225.5	1407.7	1469.5	1003.7	754.2	653.5	612.4	598.1
21°	1103.5	1176.4	1371.3	1461.6	992.6	739.1	641.7	596.5	583.8
22.5°	1037.0	1101.1	1310.3	1446.5	968.0	713.8	615.5	581.5	564.0
23°	1029.0	1083.7	1294.4	1441.8	960.9	708.2	606.8	572.7	558.5
24°	979.1	1037.0	1257.2	1426.7	942.7	690.8	592.6	562.4	545.8
25°	951.4	998.9	1211.2	1412.5	934.0	674.9	583.0	549.0	534.7
26°	912.6	967.3	1170.1	1391.9	915.0	660.7	568.0	537.1	523.6
27°	884.1	930.0	1127.3	1376.8	892.8	645.6	556.1	525.2	508.6
28°	856.3	900.7	1086.1	1352.3	876.9	629.0	547.4	514.9	499.1
29°	827.8	866.6	1052.8	1333.2	861.9	614.7	533.9	501.5	486.4
30°	804.1	839.7	1010.8	1307.9	841.3	598.1	522.0	491.9	478.5
32.5°	749.4	779.5	925.3	1247.7	792.2	564.8	493.5	465.8	457.9
35°	703.5	723.3	846.8	1180.3	746.2	529.2	470.6	443.6	439.7
37.5°	655.1	674.1	775.5	1109.8	697.9	496.7	444.4	427.0	423.8
40°	602.1	627.4	714.5	1040.1	649.6	465.0	421.4	408.0	408.8
42.5°	549.0	578.3	655.1	958.5	604.4	434.9	399.3	389.8	391.3
45°	489.6	526.8	602.1	884.1	554.5	406.4	377.1	372.3	372.3
47.5°	427.8	475.3	556.1	807.2	507.0	377.9	355.7	352.5	354.1
50°	374.7	417.5	504.6	732.8	461.8	351.7	333.5	332.7	334.3
52.5°	322.4	365.2	459.5	663.1	415.9	328.0	312.1	312.1	313.7
55°	281.2	314.5	414.3	590.2	372.3	300.2	287.6	289.9	293.1
57.5°	252.7	274.9	369.9	520.5	331.9	273.3	265.4	267.0	270.9
60°	221.0	238.4	326.4	456.3	294.7	247.2	243.2	246.4	250.3
62.5°	192.5	207.6	285.2	398.5	254.3	221.8	220.2	225.0	228.9
65°	169.5	179.8	242.4	339.8	221.8	196.5	195.7	202.8	207.6



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°
67.5°	145.8	153.7	205.2	284.4	189.3	171.1	171.1	179.0	183.0
70°	123.6	129.9	169.5	234.5	161.6	145.8	146.6	156.1	159.2
72.5°	100.6	106.2	137.8	188.5	130.7	122.0	124.4	132.3	135.5
75°	81.6	85.6	108.5	148.9	104.6	97.4	100.6	107.7	110.1
77.5°	62.6	65.8	80.0	109.3	80.0	76.0	79.2	85.6	85.6
80°	45.9	46.7	57.0	76.8	57.0	54.7	58.6	61.8	61.8
82.5°	30.1	31.7	37.2	49.1	38.0	37.2	38.8	41.2	41.2
85°	17.4	18.2	20.6	26.9	21.4	21.4	23.0	23.0	22.2
87.5°	7.1	7.9	8.7	10.3	9.5	10.3	10.3	8.7	9.5
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)