

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: P735932

Luminaire Tested: S122RDR-S675D940-X4F0-XX-UDD-W-W

Issue Date: 1/24/2024

Test Information

Test Method: LM-79-2019
Report Number: P735932
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-S675D940-X4F0-XX-UDD-W-W
Description: DEFINE 2 REGRESSED DIRECT RECESSED WITH WALL WASH OPTIC
Light Source: 4000K CCT, 90 CRI LEDS
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 2540.9 lumens
Efficiency: N/A
Efficacy: 96.6 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

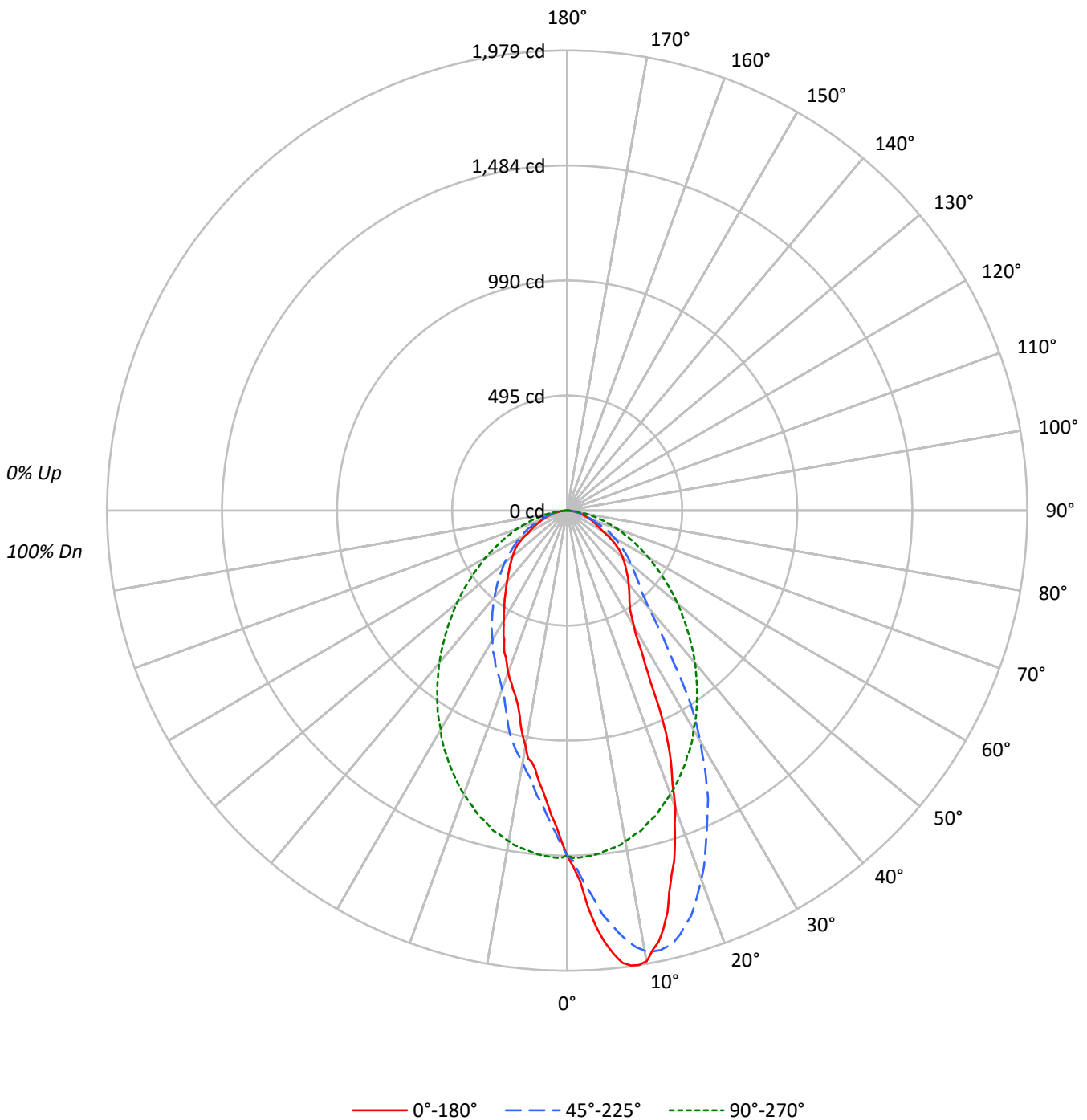
Input Watts (W): 26.3
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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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	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°	28503	28503	28503	28503	28503
5°	35960	33636	28612	24311	23279
10°	38411	37505	28178	21513	20101
15°	33785	37494	27433	19288	16751
20°	27851	34509	26557	16744	15157
25°	19857	30296	25492	15508	13635
30°	12707	25413	24126	14229	12112
35°	10944	18727	22869	13204	10984
40°	10315	13692	21458	12217	10092
45°	9745	11732	19950	11319	9525
50°	9279	10693	18531	10532	9171
55°	8515	9893	16943	9681	8844
60°	6720	9015	15562	9084	7473
65°	6085	8073	14113	8437	6813
70°	5614	6513	12830	7267	6266
75°	5228	5897	11192	6491	5897
80°	4837	5335	9475	5822	5335
85°	4323	4720	7278	5117	4720

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 67.5°
 Vertical Angle: 45°
 Luminance: 27925 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	143.8	5.7
10°-20°	386.4	15.2
20°-30°	484.7	19.1
30°-40°	461.9	18.2
40°-50°	407.5	16.0
50°-60°	320.5	12.6
60°-70°	204.5	8.0
70°-80°	104.0	4.1
80°-90°	27.6	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°	1015.0	39.9
0°-40°	1476.9	58.1
0°-60°	2204.9	86.8
0°-90°	2540.9	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2540.9	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	1483	1483	1483	1483	1483	
5°	1864	1743	1483	1260	1206	181
15°	1698	1884	1379	969	842	470
25°	936	1428	1202	731	643	422
35°	466	798	975	563	468	297
45°	358	432	734	416	350	278
55°	254	295	506	289	264	223
65°	134	178	310	186	150	134
75°	70	79	151	87	79	75
85°	20	21	33	23	21	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°	1482.9	1482.9	1482.9	1482.9	1482.9	1482.9	1482.9	1482.9	1482.9
1°	1532.9	1540.0	1507.0	1510.6	1494.5	1466.0	1438.3	1441.0	1421.4
2°	1594.4	1613.1	1567.6	1540.0	1493.6	1443.7	1388.4	1381.3	1357.2
3°	1705.8	1696.9	1622.0	1565.8	1490.0	1415.1	1345.6	1329.5	1309.0
4°	1795.9	1769.2	1677.3	1598.8	1488.3	1382.2	1303.7	1276.0	1255.5
5°	1863.7	1829.8	1743.3	1623.8	1482.9	1363.4	1260.0	1228.8	1206.5
6°	1918.1	1892.2	1786.1	1647.0	1475.8	1335.8	1234.1	1192.2	1169.0
7°	1960.0	1938.6	1829.8	1678.2	1469.5	1308.1	1193.1	1149.4	1121.8
8°	1976.0	1966.2	1869.9	1700.5	1462.4	1288.5	1156.5	1117.3	1092.3
9°	1978.7	1979.6	1902.0	1721.9	1456.2	1252.9	1130.7	1090.6	1077.2
10°	1968.0	1976.0	1921.6	1746.0	1443.7	1235.0	1102.2	1063.8	1029.9
11°	1926.1	1961.8	1931.4	1762.0	1433.0	1206.5	1077.2	1027.3	993.4
12°	1894.9	1928.8	1932.3	1782.5	1420.5	1193.1	1055.8	988.9	953.2
13°	1843.2	1878.8	1923.4	1787.9	1413.4	1160.1	1029.0	949.7	906.0
14°	1781.6	1838.7	1909.2	1799.5	1395.5	1131.6	1002.3	894.4	868.5
15°	1697.8	1779.0	1884.2	1803.9	1378.6	1112.0	969.3	866.7	841.8
16°	1628.3	1720.1	1850.3	1803.9	1367.9	1085.2	933.6	842.7	817.7
17°	1575.7	1650.6	1822.7	1804.8	1350.1	1066.5	898.0	820.4	800.8
18°	1501.6	1585.5	1779.0	1801.3	1331.3	1044.2	867.6	801.6	777.6
19°	1419.6	1519.5	1732.6	1795.0	1315.3	1021.0	835.5	782.0	761.5
20°	1361.6	1453.5	1687.1	1785.2	1298.3	1005.8	818.6	759.7	741.0
21°	1264.4	1376.8	1641.6	1771.8	1280.5	980.0	795.4	740.1	719.6
22.5°	1165.5	1268.9	1557.8	1749.5	1251.1	947.9	769.5	716.0	685.7
23°	1127.1	1243.0	1532.0	1743.3	1241.3	939.9	761.5	705.3	678.6
24°	1045.1	1165.5	1478.5	1723.7	1219.9	913.1	746.4	683.9	665.2
25°	936.3	1099.5	1428.5	1703.2	1202.0	893.5	731.2	667.0	642.9
26°	813.2	1009.4	1383.0	1678.2	1177.1	866.7	710.7	650.9	617.1
27°	737.4	931.8	1321.5	1651.4	1159.2	847.1	693.8	626.9	602.8
28°	676.8	809.7	1266.2	1625.6	1137.8	823.0	682.2	609.9	581.4
29°	610.8	742.8	1201.1	1590.8	1114.6	795.4	663.4	593.0	562.7
30°	572.5	671.5	1145.0	1565.0	1087.0	776.7	641.1	576.0	545.7
32.5°	502.9	553.8	992.5	1490.9	1034.4	723.2	604.6	529.7	503.8
35°	466.4	493.1	798.1	1404.4	974.6	678.6	562.7	491.3	468.1
37.5°	438.7	454.8	659.0	1311.7	914.0	639.4	524.3	455.7	433.4
40°	411.1	423.6	545.7	1222.5	855.2	601.0	486.9	419.1	402.2
42.5°	386.1	395.9	473.5	1134.3	794.5	561.8	450.3	390.6	375.4
45°	358.5	367.4	431.6	1027.3	733.9	521.7	416.4	359.4	350.4
47.5°	335.3	341.5	391.5	931.8	674.1	483.3	381.7	334.4	328.1
50°	310.3	318.3	357.6	825.7	619.7	445.9	352.2	312.1	306.7
52.5°	286.2	289.8	329.0	719.6	562.7	409.3	321.0	289.8	286.2
55°	254.1	268.4	295.2	610.8	505.6	375.4	288.9	266.6	263.9
57.5°	217.6	236.3	264.8	512.7	452.1	338.0	263.1	245.2	233.6
60°	174.8	197.1	234.5	426.2	404.8	304.1	236.3	208.7	194.4
62.5°	153.4	160.5	206.9	356.7	356.7	272.0	209.6	179.2	173.0
65°	133.8	139.1	177.5	295.2	310.3	236.3	185.5	155.2	149.8



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°
67.5°	116.8	121.3	135.5	246.1	267.5	206.0	153.4	135.5	129.3
70°	99.9	103.4	115.9	200.6	228.3	175.7	129.3	115.9	111.5
72.5°	84.7	88.3	95.4	150.7	187.3	146.2	108.8	99.0	95.4
75°	70.4	72.2	79.4	112.4	150.7	116.8	87.4	81.1	79.4
77.5°	57.1	58.0	62.4	80.3	116.8	89.2	70.4	65.1	64.2
80°	43.7	44.6	48.2	58.0	85.6	64.2	52.6	49.9	48.2
82.5°	31.2	32.1	33.9	39.2	58.0	43.7	37.5	36.6	33.9
85°	19.6	19.6	21.4	24.1	33.0	25.0	23.2	22.3	21.4
87.5°	8.9	8.9	9.8	9.8	15.2	10.7	10.7	9.8	8.9
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)