

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: P735906

Luminaire Tested: S122RDR-S1005D950-X4F0-XX-UDD-W-W

Issue Date: 1/24/2024

Test Information

Test Method: LM-79-2019
Report Number: P735906
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-S1005D950-X4F0-XX-UDD-W-W
Description: DEFINE 2 REGRESSED DIRECT RECESSED WITH WALL WASH OPTIC
Light Source: 5000K CCT, 90 CRI LEDS
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 4099.7 lumens
Efficiency: N/A
Efficacy: 98.1 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

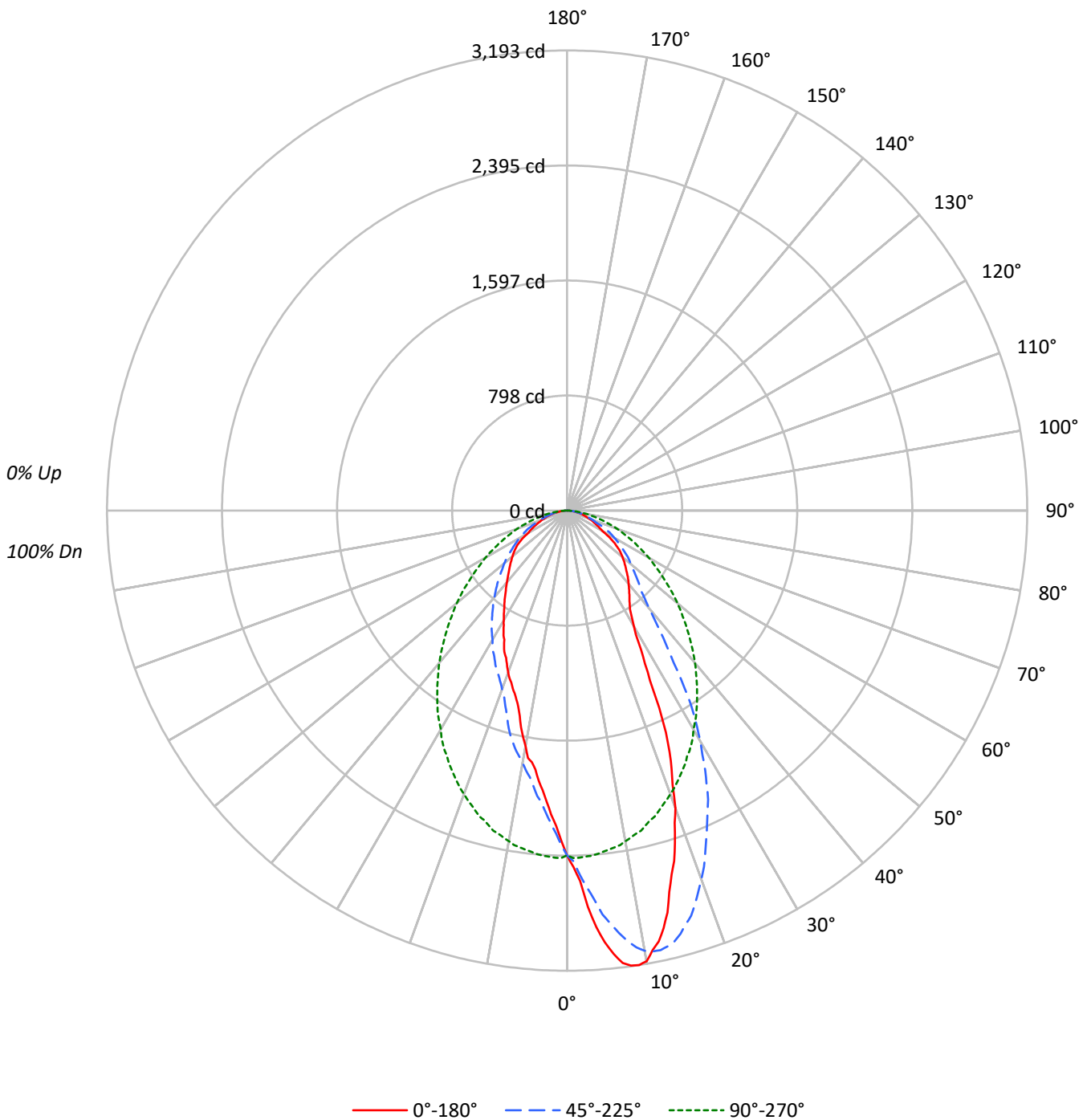
Input Watts (W): 41.8
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



TEST NUMBER: P735906

CATALOG NUMBER: S122RDR-S1005D950-X4F0-XX-UDD-W-W

Luminous Intensity Polar Plot



TEST NUMBER: P735906

CATALOG NUMBER: S122RDR-S1005D950-X4F0-XX-UDD-W-W

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°	45991	45991	45991	45991	45991
5°	58019	54272	46166	39226	37559
10°	61977	60515	45465	34708	32435
15°	54512	60496	44262	31121	27027
20°	44939	55680	42849	27017	24456
25°	32039	48883	41134	25022	21999
30°	20501	41003	38927	22961	19543
35°	17657	30216	36901	21304	17725
40°	16643	22093	34621	19712	16282
45°	15723	18930	32187	18264	15369
50°	14972	17251	29900	16994	14799
55°	13740	15958	27338	15623	14272
60°	10841	14547	25111	14658	12059
65°	9815	13021	22773	13613	10993
70°	9054	10509	20698	11723	10105
75°	8444	9513	18061	10471	9513
80°	7804	8601	15286	9398	8601
85°	6991	7609	11733	8248	7609

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 67.5°
 Vertical Angle: 45°
 Luminance: 45056 cd/sqm



TEST NUMBER: P735906

CATALOG NUMBER: S122RDR-S1005D950-X4F0-XX-UDD-W-W

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	232.0	5.7
10°-20°	623.5	15.2
20°-30°	782.1	19.1
30°-40°	745.2	18.2
40°-50°	657.4	16.0
50°-60°	517.2	12.6
60°-70°	330.0	8.0
70°-80°	167.7	4.1
80°-90°	44.5	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°	1637.7	39.9
0°-40°	2382.9	58.1
0°-60°	3557.5	86.8
0°-90°	4099.7	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4099.7	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	2393	2393	2393	2393	2393	
5°	3007	2813	2393	2033	1947	292
15°	2739	3040	2224	1564	1358	759
25°	1511	2305	1940	1180	1037	681
35°	752	1288	1573	908	755	478
45°	578	696	1184	672	565	448
55°	410	476	816	466	426	360
65°	216	286	501	299	242	216
75°	114	128	243	141	128	121
85°	32	34	53	37	34	36
90°	0	0	0	0	0	



TEST NUMBER: P735906

CATALOG NUMBER: S122RDR-S1005D950-X4F0-XX-UDD-W-W

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°
0°	2392.7	2392.7	2392.7	2392.7	2392.7	2392.7	2392.7	2392.7	2392.7
1°	2473.2	2484.7	2431.5	2437.3	2411.4	2365.3	2320.7	2325.0	2293.4
2°	2572.5	2602.7	2529.3	2484.7	2409.9	2329.4	2240.2	2228.6	2189.8
3°	2752.4	2738.0	2617.1	2526.5	2404.2	2283.3	2171.1	2145.2	2112.1
4°	2897.7	2854.5	2706.3	2579.7	2401.3	2230.1	2103.5	2058.9	2025.8
5°	3007.0	2952.3	2812.8	2620.0	2392.7	2199.9	2033.0	1982.6	1946.6
6°	3094.8	3053.1	2881.8	2657.4	2381.2	2155.3	1991.3	1923.6	1886.2
7°	3162.4	3127.9	2952.3	2707.8	2371.1	2110.7	1925.1	1854.6	1810.0
8°	3188.3	3172.5	3017.1	2743.7	2359.6	2079.0	1866.1	1802.8	1762.5
9°	3192.6	3194.1	3068.9	2778.3	2349.5	2021.5	1824.4	1759.6	1738.0
10°	3175.4	3188.3	3100.5	2817.1	2329.4	1992.7	1778.3	1716.4	1661.8
11°	3107.7	3165.3	3116.4	2843.0	2312.1	1946.6	1738.0	1657.5	1602.8
12°	3057.4	3112.0	3117.8	2876.1	2292.0	1925.1	1703.5	1595.6	1538.0
13°	2973.9	3031.5	3103.4	2884.7	2280.4	1871.8	1660.3	1532.3	1461.8
14°	2874.7	2966.7	3080.4	2903.4	2251.7	1825.8	1617.2	1443.1	1401.4
15°	2739.4	2870.3	3040.1	2910.6	2224.3	1794.1	1563.9	1398.5	1358.2
16°	2627.2	2775.4	2985.4	2910.6	2207.1	1751.0	1506.4	1359.6	1319.3
17°	2542.3	2663.2	2940.8	2912.1	2178.3	1720.8	1448.8	1323.7	1292.0
18°	2422.9	2558.1	2870.3	2906.3	2148.1	1684.8	1399.9	1293.4	1254.6
19°	2290.5	2451.7	2795.5	2896.2	2122.2	1647.4	1348.1	1261.8	1228.7
20°	2197.0	2345.2	2722.1	2880.4	2094.8	1622.9	1320.8	1225.8	1195.6
21°	2040.2	2221.5	2648.8	2858.8	2066.1	1581.2	1283.4	1194.2	1161.1
22.5°	1880.5	2047.4	2513.5	2822.9	2018.6	1529.4	1241.7	1155.3	1106.4
23°	1818.6	2005.6	2471.8	2812.8	2002.8	1516.5	1228.7	1138.1	1094.9
24°	1686.2	1880.5	2385.5	2781.1	1968.2	1473.3	1204.2	1103.5	1073.3
25°	1510.7	1774.0	2304.9	2748.0	1939.5	1441.6	1179.8	1076.2	1037.3
26°	1312.2	1628.7	2231.5	2707.8	1899.2	1398.5	1146.7	1050.3	995.6
27°	1189.9	1503.5	2132.2	2664.6	1870.4	1366.8	1119.4	1011.5	972.6
28°	1092.0	1306.4	2043.0	2622.9	1835.9	1328.0	1100.7	984.1	938.1
29°	985.6	1198.5	1938.0	2566.8	1798.5	1283.4	1070.4	956.8	907.9
30°	923.7	1083.4	1847.4	2525.0	1753.9	1253.2	1034.5	929.4	880.5
32.5°	811.5	893.5	1601.3	2405.6	1669.0	1166.8	975.5	854.6	812.9
35°	752.5	795.6	1287.7	2266.1	1572.6	1094.9	907.9	792.8	755.4
37.5°	707.9	733.8	1063.2	2116.4	1474.7	1031.6	846.0	735.2	699.2
40°	663.3	683.4	880.5	1972.5	1379.8	969.7	785.6	676.2	648.9
42.5°	623.0	638.8	764.0	1830.1	1281.9	906.4	726.6	630.2	605.7
45°	578.4	592.8	696.4	1657.5	1184.1	841.7	671.9	579.8	565.4
47.5°	541.0	551.0	631.6	1503.5	1087.7	779.8	615.8	539.5	529.5
50°	500.7	513.6	576.9	1332.3	999.9	719.4	568.3	503.6	494.9
52.5°	461.8	467.6	530.9	1161.1	907.9	660.4	518.0	467.6	461.8
55°	410.0	433.1	476.2	985.6	815.8	605.7	466.2	430.2	425.9
57.5°	351.1	381.3	427.3	827.3	729.5	545.3	424.4	395.7	377.0
60°	282.0	318.0	378.4	687.7	653.2	490.6	381.3	336.7	313.7
62.5°	247.5	259.0	333.8	575.5	575.5	438.8	338.1	289.2	279.1
65°	215.8	224.4	286.3	476.2	500.7	381.3	299.3	250.3	241.7



TEST NUMBER: P735906

CATALOG NUMBER: S122RDR-S1005D950-X4F0-XX-UDD-W-W

CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°
67.5°	188.5	195.7	218.7	397.1	431.6	332.4	247.5	218.7	208.6
70°	161.1	166.9	187.0	323.7	368.3	283.4	208.6	187.0	179.8
72.5°	136.7	142.4	153.9	243.2	302.1	236.0	175.5	159.7	153.9
75°	113.7	116.5	128.1	181.3	243.2	188.5	141.0	130.9	128.1
77.5°	92.1	93.5	100.7	129.5	188.5	143.9	113.7	105.0	103.6
80°	70.5	71.9	77.7	93.5	138.1	103.6	84.9	80.6	77.7
82.5°	50.4	51.8	54.7	63.3	93.5	70.5	60.4	59.0	54.7
85°	31.7	31.7	34.5	38.8	53.2	40.3	37.4	36.0	34.5
87.5°	14.4	14.4	15.8	15.8	24.5	17.3	17.3	15.8	14.4
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)