

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: P735899

Luminaire Tested: S122RDR-S1005D835-X4F0-XX-UDD-W-W

Issue Date: 1/24/2024

Test Information

Test Method: LM-79-2019
Report Number: P735899
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-S1005D835-X4F0-XX-UDD-W-W
Description: DEFINE 2 REGRESSED DIRECT RECESSED WITH WALL WASH OPTIC
Light Source: 3500K CCT, 80 CRI LEDS
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 4297.4 lumens
Efficiency: N/A
Efficacy: 102.8 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

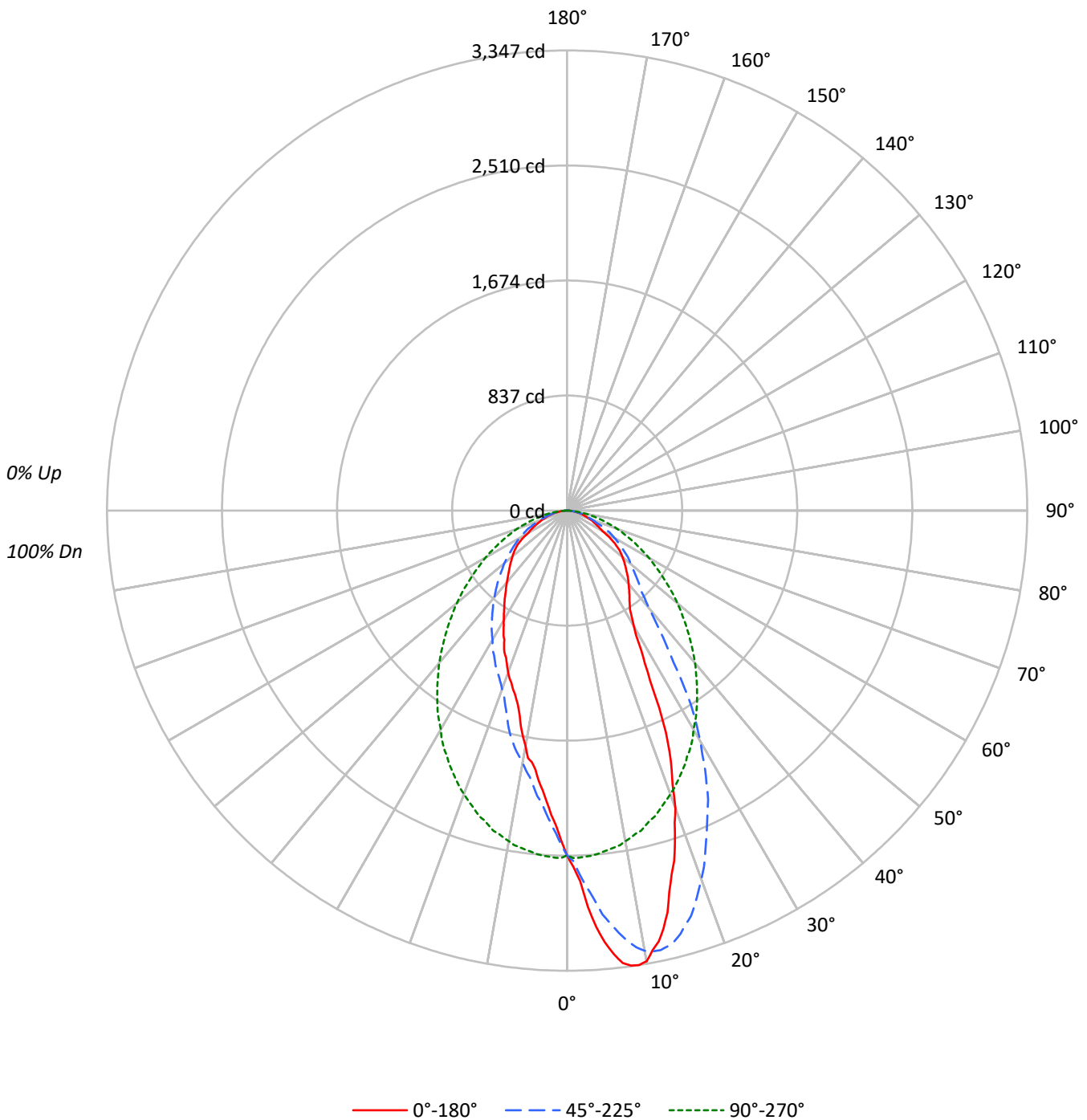
Input Watts (W): 41.8
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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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	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°	48207	48207	48207	48207	48207
5°	60817	56888	48391	41117	39371
10°	64965	63433	47657	36383	33998
15°	57141	63413	46397	32621	28331
20°	47105	58366	44917	28320	25636
25°	33583	51239	43117	26228	23062
30°	21489	42980	40803	24068	20486
35°	18509	31673	38679	22329	18579
40°	17446	23160	36290	20660	17067
45°	16481	19841	33740	19145	16111
50°	15693	18085	31344	17813	15514
55°	14403	16729	28655	16374	14959
60°	11364	15246	26322	15365	12640
65°	10288	13649	23869	14268	11525
70°	9492	11021	21699	12291	10594
75°	8845	9966	18930	10976	9966
80°	8180	9010	16028	9851	9010
85°	7322	7984	12306	8645	7984

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 67.5°
 Vertical Angle: 45°
 Luminance: 47228 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	243.2	5.7
10°-20°	653.6	15.2
20°-30°	819.8	19.1
30°-40°	781.2	18.2
40°-50°	689.1	16.0
50°-60°	542.1	12.6
60°-70°	345.9	8.0
70°-80°	175.8	4.1
80°-90°	46.6	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°	1716.7	39.9
0°-40°	2497.8	58.1
0°-60°	3729.0	86.8
0°-90°	4297.4	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4297.4	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	2508	2508	2508	2508	2508	
5°	3152	2948	2508	2131	2040	306
15°	2872	3187	2332	1639	1424	795
25°	1584	2416	2033	1237	1087	714
35°	789	1350	1648	952	792	502
45°	606	730	1241	704	593	470
55°	430	499	855	489	446	378
65°	226	300	525	314	253	226
75°	119	134	255	148	134	127
85°	33	36	56	39	36	38
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°	2508.0	2508.0	2508.0	2508.0	2508.0	2508.0	2508.0	2508.0	2508.0
1°	2592.5	2604.6	2548.8	2554.8	2527.6	2479.4	2432.6	2437.2	2404.0
2°	2696.6	2728.2	2651.3	2604.6	2526.1	2441.7	2348.2	2336.1	2295.4
3°	2885.1	2870.0	2743.3	2648.3	2520.1	2393.4	2275.8	2248.6	2213.9
4°	3037.4	2992.1	2836.8	2704.1	2517.1	2337.6	2204.9	2158.1	2123.5
5°	3152.0	3094.7	2948.4	2746.3	2508.0	2305.9	2131.0	2078.2	2040.5
6°	3244.0	3200.3	3020.8	2785.5	2496.0	2259.2	2087.3	2016.4	1977.2
7°	3314.9	3278.7	3094.7	2838.3	2485.4	2212.4	2017.9	1944.0	1897.2
8°	3342.0	3325.4	3162.6	2876.0	2473.3	2179.3	1956.1	1889.7	1847.5
9°	3346.6	3348.1	3216.9	2912.2	2462.8	2118.9	1912.3	1844.5	1821.8
10°	3328.5	3342.0	3250.0	2952.9	2441.7	2088.8	1864.1	1799.2	1741.9
11°	3257.6	3317.9	3266.6	2980.1	2423.6	2040.5	1821.8	1737.4	1680.1
12°	3204.8	3262.1	3268.1	3014.8	2402.5	2017.9	1785.6	1672.5	1612.2
13°	3117.3	3177.6	3253.1	3023.8	2390.4	1962.1	1740.4	1606.2	1532.3
14°	3013.3	3109.8	3228.9	3043.4	2360.2	1913.8	1695.1	1512.7	1468.9
15°	2871.5	3008.7	3186.7	3051.0	2331.6	1880.6	1639.3	1465.9	1423.7
16°	2753.9	2909.2	3129.4	3051.0	2313.5	1835.4	1579.0	1425.2	1383.0
17°	2664.9	2791.6	3082.6	3052.5	2283.3	1803.7	1518.7	1387.5	1354.3
18°	2539.7	2681.5	3008.7	3046.4	2251.7	1766.0	1467.4	1355.8	1315.1
19°	2401.0	2569.9	2930.3	3035.9	2224.5	1726.8	1413.1	1322.6	1288.0
20°	2302.9	2458.3	2853.4	3019.3	2195.9	1701.2	1384.5	1284.9	1253.3
21°	2138.5	2328.6	2776.5	2996.7	2165.7	1657.4	1345.3	1251.8	1217.1
22.5°	1971.1	2146.1	2634.7	2959.0	2115.9	1603.2	1301.5	1211.0	1159.8
23°	1906.3	2102.3	2591.0	2948.4	2099.3	1589.6	1288.0	1192.9	1147.7
24°	1767.5	1971.1	2500.5	2915.2	2063.1	1544.3	1262.3	1156.7	1125.1
25°	1583.5	1859.5	2416.0	2880.5	2033.0	1511.2	1236.7	1128.1	1087.4
26°	1375.4	1707.2	2339.1	2838.3	1990.7	1465.9	1202.0	1100.9	1043.6
27°	1247.2	1576.0	2235.1	2793.1	1960.6	1432.7	1173.3	1060.2	1019.5
28°	1144.7	1369.4	2141.6	2749.3	1924.4	1392.0	1153.7	1031.6	983.3
29°	1033.1	1256.3	2031.5	2690.5	1885.2	1345.3	1122.1	1002.9	951.6
30°	968.2	1135.6	1936.5	2646.8	1838.4	1313.6	1084.4	974.3	923.0
32.5°	850.6	936.6	1678.6	2521.6	1749.4	1223.1	1022.5	895.8	852.1
35°	788.8	834.0	1349.8	2375.3	1648.4	1147.7	951.6	831.0	791.8
37.5°	742.0	769.2	1114.5	2218.5	1545.8	1081.3	886.8	770.7	733.0
40°	695.3	716.4	923.0	2067.7	1446.3	1016.5	823.4	708.8	680.2
42.5°	653.0	669.6	800.8	1918.4	1343.8	950.1	761.6	660.6	634.9
45°	606.3	621.4	729.9	1737.4	1241.2	882.3	704.3	607.8	592.7
47.5°	567.1	577.6	662.1	1576.0	1140.2	817.4	645.5	565.6	555.0
50°	524.8	538.4	604.8	1396.5	1048.2	754.1	595.7	527.8	518.8
52.5°	484.1	490.1	556.5	1217.1	951.6	692.2	542.9	490.1	484.1
55°	429.8	453.9	499.2	1033.1	855.1	634.9	488.6	450.9	446.4
57.5°	368.0	399.7	447.9	867.2	764.6	571.6	444.9	414.7	395.1
60°	295.6	333.3	396.6	720.9	684.7	514.3	399.7	352.9	328.8
62.5°	259.4	271.5	349.9	603.3	603.3	460.0	354.4	303.1	292.6
65°	226.2	235.3	300.1	499.2	524.8	399.7	313.7	262.4	253.4



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°
67.5°	197.6	205.1	229.2	416.2	452.4	348.4	259.4	229.2	218.7
70°	168.9	174.9	196.1	339.3	386.1	297.1	218.7	196.1	188.5
72.5°	143.3	149.3	161.4	254.9	316.7	247.3	184.0	167.4	161.4
75°	119.1	122.2	134.2	190.0	254.9	197.6	147.8	137.2	134.2
77.5°	96.5	98.0	105.6	135.7	197.6	150.8	119.1	110.1	108.6
80°	73.9	75.4	81.4	98.0	144.8	108.6	89.0	84.5	81.4
82.5°	52.8	54.3	57.3	66.4	98.0	73.9	63.3	61.8	57.3
85°	33.2	33.2	36.2	40.7	55.8	42.2	39.2	37.7	36.2
87.5°	15.1	15.1	16.6	16.6	25.6	18.1	18.1	16.6	15.1
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)