

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: P735905

Luminaire Tested: S122RDR-S1005D940-X4F0-XX-UDD-W-W

Issue Date: 1/24/2024

Test Information

Test Method: LM-79-2019
Report Number: P735905
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-S1005D940-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: 3832.0 lumens
Efficiency: N/A
Efficacy: 91.7 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

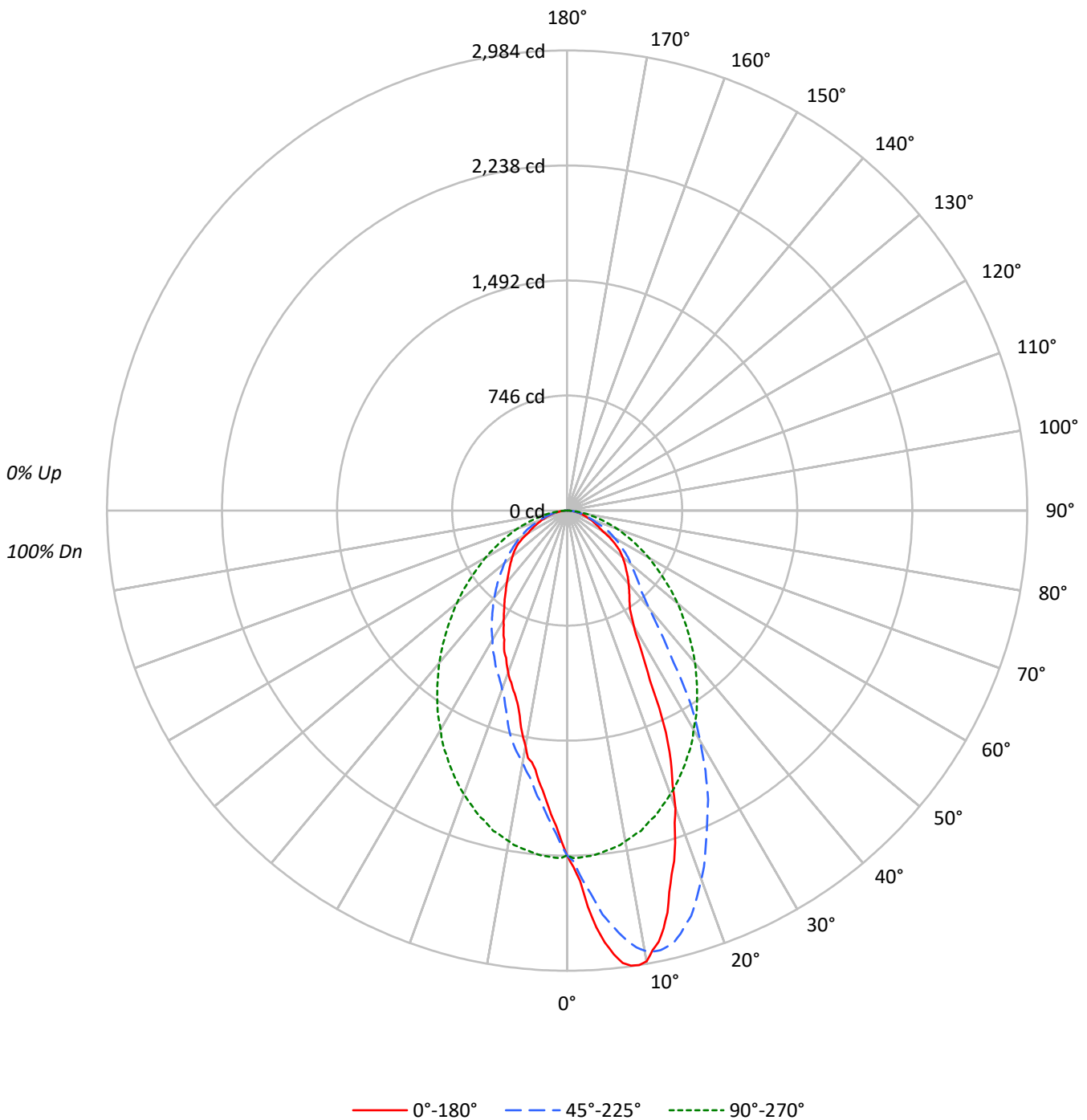
Input Watts (W): 41.8
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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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	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°	42986	42986	42986	42986	42986
5°	54232	50728	43151	36664	35107
10°	57929	56565	42496	32442	30317
15°	50952	56546	41373	29089	25262
20°	42004	52045	40053	25252	22858
25°	29948	45691	38446	23389	20564
30°	19163	38326	36384	21460	18266
35°	16503	28242	34491	19912	16566
40°	15557	20650	32361	18425	15218
45°	14695	17693	30086	17071	14366
50°	13995	16127	27950	15884	13833
55°	12845	14916	25552	14601	13341
60°	10133	13597	23469	13701	11271
65°	9174	12171	21285	12721	10274
70°	8464	9824	19349	10959	9447
75°	7887	8890	16881	9788	8890
80°	7295	8036	14290	8778	8036
85°	6528	7123	10983	7719	7123

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 67.5°
 Vertical Angle: 45°
 Luminance: 42112 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	216.9	5.7
10°-20°	582.8	15.2
20°-30°	731.1	19.1
30°-40°	696.6	18.2
40°-50°	614.5	16.0
50°-60°	483.4	12.6
60°-70°	308.4	8.0
70°-80°	156.8	4.1
80°-90°	41.6	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°	1530.8	39.9
0°-40°	2227.3	58.1
0°-60°	3325.2	86.8
0°-90°	3832.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3832.0	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	2236	2236	2236	2236	2236	
5°	2811	2629	2236	1900	1820	273
15°	2560	2842	2079	1462	1270	709
25°	1412	2154	1813	1103	970	636
35°	703	1204	1470	849	706	447
45°	541	651	1107	628	528	419
55°	383	445	762	436	398	337
65°	202	268	468	280	226	202
75°	106	120	227	132	120	113
85°	30	32	50	35	32	33
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°	2236.4	2236.4	2236.4	2236.4	2236.4	2236.4	2236.4	2236.4	2236.4
1°	2311.8	2322.5	2272.8	2278.1	2253.9	2210.9	2169.2	2173.2	2143.6
2°	2404.5	2432.8	2364.2	2322.5	2252.6	2177.3	2093.9	2083.1	2046.8
3°	2572.6	2559.2	2446.2	2361.5	2247.2	2134.2	2029.3	2005.1	1974.2
4°	2708.5	2668.1	2529.6	2411.3	2244.5	2084.5	1966.1	1924.4	1893.5
5°	2810.7	2759.6	2629.1	2448.9	2236.4	2056.2	1900.2	1853.2	1819.5
6°	2892.7	2853.7	2693.7	2483.9	2225.7	2014.5	1861.2	1798.0	1763.1
7°	2955.9	2923.6	2759.6	2531.0	2216.3	1972.9	1799.4	1733.5	1691.8
8°	2980.1	2965.3	2820.1	2564.6	2205.5	1943.3	1744.2	1685.1	1647.4
9°	2984.2	2985.5	2868.5	2596.9	2196.1	1889.5	1705.2	1644.7	1624.5
10°	2968.0	2980.1	2898.1	2633.2	2177.3	1862.6	1662.2	1604.4	1553.3
11°	2904.8	2958.6	2912.9	2657.4	2161.1	1819.5	1624.5	1549.2	1498.1
12°	2857.7	2908.9	2914.2	2688.3	2142.3	1799.4	1592.3	1491.4	1437.6
13°	2779.8	2833.5	2900.8	2696.4	2131.5	1749.6	1551.9	1432.2	1366.3
14°	2687.0	2773.0	2879.3	2713.9	2104.6	1706.6	1511.6	1348.9	1309.9
15°	2560.5	2682.9	2841.6	2720.6	2079.1	1677.0	1461.8	1307.2	1269.5
16°	2455.6	2594.2	2790.5	2720.6	2063.0	1636.7	1408.0	1270.9	1233.2
17°	2376.3	2489.3	2748.8	2721.9	2036.1	1608.4	1354.2	1237.2	1207.7
18°	2264.7	2391.1	2682.9	2716.5	2007.8	1574.8	1308.5	1209.0	1172.7
19°	2141.0	2291.6	2613.0	2707.1	1983.6	1539.8	1260.1	1179.4	1148.5
20°	2053.5	2192.1	2544.4	2692.3	1958.1	1517.0	1234.5	1145.8	1117.5
21°	1907.0	2076.4	2475.8	2672.2	1931.2	1478.0	1199.6	1116.2	1085.3
22.5°	1757.7	1913.7	2349.4	2638.5	1886.8	1429.5	1160.6	1079.9	1034.2
23°	1699.9	1874.7	2310.4	2629.1	1872.0	1417.4	1148.5	1063.8	1023.4
24°	1576.1	1757.7	2229.7	2599.5	1839.7	1377.1	1125.6	1031.5	1003.2
25°	1412.1	1658.2	2154.4	2568.6	1812.8	1347.5	1102.8	1005.9	969.6
26°	1226.5	1522.3	2085.8	2531.0	1775.2	1307.2	1071.8	981.7	930.6
27°	1112.2	1405.3	1993.0	2490.6	1748.3	1277.6	1046.3	945.4	909.1
28°	1020.7	1221.1	1909.6	2451.6	1716.0	1241.3	1028.8	919.9	876.8
29°	921.2	1120.2	1811.5	2399.2	1681.0	1199.6	1000.5	894.3	848.6
30°	863.4	1012.7	1726.8	2360.2	1639.3	1171.3	966.9	868.8	823.0
32.5°	758.5	835.1	1496.8	2248.5	1560.0	1090.7	911.8	798.8	759.8
35°	703.3	743.7	1203.6	2118.1	1469.9	1023.4	848.6	741.0	706.0
37.5°	661.7	685.9	993.8	1978.2	1378.4	964.2	790.8	687.2	653.6
40°	620.0	638.8	823.0	1843.8	1289.7	906.4	734.3	632.1	606.5
42.5°	582.3	597.1	714.1	1710.6	1198.2	847.2	679.1	589.0	566.2
45°	540.6	554.1	650.9	1549.2	1106.8	786.7	628.0	542.0	528.5
47.5°	505.7	515.1	590.4	1405.3	1016.7	728.9	575.6	504.3	494.9
50°	468.0	480.1	539.3	1245.3	934.7	672.4	531.2	470.7	462.6
52.5°	431.7	437.1	496.2	1085.3	848.6	617.3	484.1	437.1	431.7
55°	383.3	404.8	445.1	921.2	762.5	566.2	435.7	402.1	398.1
57.5°	328.1	356.4	399.4	773.3	681.8	509.7	396.7	369.8	352.3
60°	263.6	297.2	353.7	642.8	610.5	458.6	356.4	314.7	293.2
62.5°	231.3	242.1	312.0	537.9	537.9	410.2	316.0	270.3	260.9
65°	201.7	209.8	267.6	445.1	468.0	356.4	279.7	234.0	225.9



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°
67.5°	176.2	182.9	204.4	371.2	403.4	310.7	231.3	204.4	195.0
70°	150.6	156.0	174.8	302.6	344.3	264.9	195.0	174.8	168.1
72.5°	127.8	133.1	143.9	227.3	282.4	220.6	164.1	149.3	143.9
75°	106.2	108.9	119.7	169.4	227.3	176.2	131.8	122.4	119.7
77.5°	86.1	87.4	94.1	121.0	176.2	134.5	106.2	98.2	96.8
80°	65.9	67.2	72.6	87.4	129.1	96.8	79.3	75.3	72.6
82.5°	47.1	48.4	51.1	59.2	87.4	65.9	56.5	55.1	51.1
85°	29.6	29.6	32.3	36.3	49.8	37.7	35.0	33.6	32.3
87.5°	13.4	13.4	14.8	14.8	22.9	16.1	16.1	14.8	13.4
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)