

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: P1060298

Luminaire Tested: S124RDR-S1020D950-X4F0-XX-UDD-WVL-S

Issue Date: 8/7/2025

Test Information

Test Method: LM-79-2019
Report Number: P1060298
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2406-143-76)
Test Lab: INNOVATION CENTER
Issue Date: 8/7/2025
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: NEO-RAY
Catalog Number: S124RDR-S1020D950-X4F0-XX-UDD-WVL-S
Description: DEFINE 4 SILVER REGRESSED DIRECT RECESSED HOUSING WITH WHITE STRAIGHT BLADE
LOUVER WITH DIFFUSER
CORE LIGHT ENGINE
Light Source: 5000K CCT, 90 CRI LEDS
Ballast/Driver: -

Summary

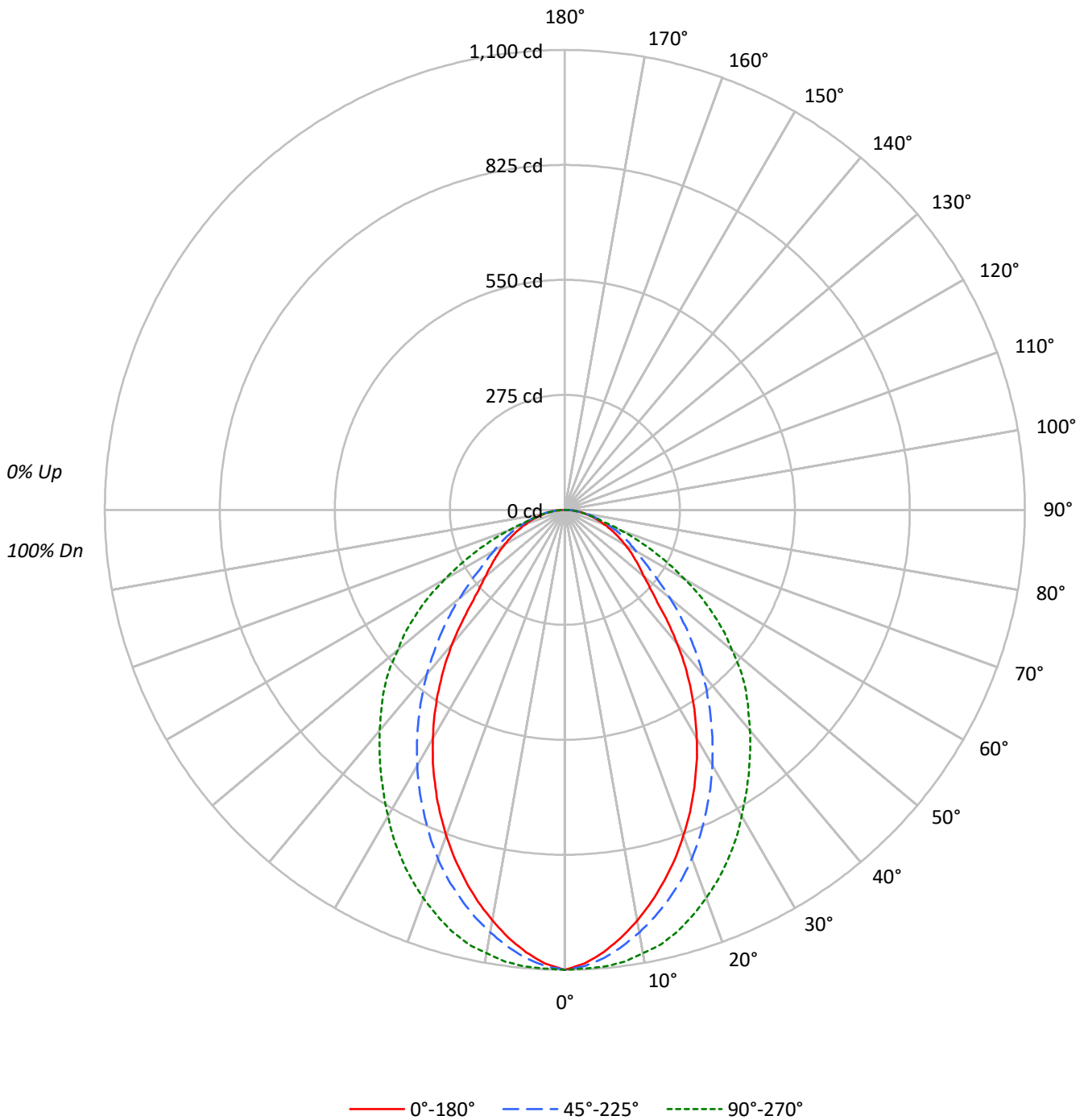
Lumens per Lamp: N/A
Luminaire Lumens: 2003.0 lumens
Efficiency: N/A
Efficacy: 57.2 lumens/watt
Spacing Criteria (0/90/45): 0.93 / 1.15 / 1.1
Luminous Opening: Rectangular (W 0.31' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 35
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: P1060298

CATALOG NUMBER: S124RDR-S1020D950-X4F0-XX-UDD-WVL-S

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				
1	110	106	102	99	108	104	100	97	100	97	94	96	93	91	92	90	89	87				
2	102	94	88	83	99	92	87	82	89	84	80	86	82	79	83	80	77	75				
3	94	84	77	71	91	83	76	71	80	74	69	77	72	68	75	71	67	65				
4	87	76	68	62	84	74	67	61	72	66	61	70	64	60	68	63	59	57				
5	80	69	60	54	78	68	60	54	65	59	54	64	58	53	62	57	52	50				
6	75	62	54	48	73	62	54	48	60	53	48	58	52	47	57	51	47	45				
7	70	57	49	43	68	56	49	43	55	48	43	54	47	43	52	47	42	41				
8	65	53	45	39	64	52	44	39	51	44	39	50	43	39	48	43	39	37				
9	61	49	41	36	60	48	41	36	47	40	36	46	40	35	45	39	35	34				
10	58	45	38	33	56	45	38	33	44	37	33	43	37	33	42	36	32	31				

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	9474	9474	9474
5°	9181	9301	9480
10°	8722	8975	9418
15°	8184	8584	9304
20°	7599	8137	9057
25°	6958	7582	8766
30°	6272	7018	8405
35°	5528	6401	8062
40°	4705	5769	7739
45°	3820	5098	7458
50°	3306	4387	6984
55°	3064	3722	6475
60°	2861	3357	5680
65°	2679	3148	4723
70°	2498	2903	3570
75°	2379	2685	2572
80°	2232	2460	2172
85°	2055	2282	1709

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°
 Vertical Angle: 45°
 Luminance: 7458 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	101.6	5.1
10°-20°	273.0	13.6
20°-30°	372.8	18.6
30°-40°	390.6	19.5
40°-50°	338.1	16.9
50°-60°	254.0	12.7
60°-70°	163.8	8.2
70°-80°	84.0	4.2
80°-90°	25.1	1.3
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°	747.4	37.3
0°-40°	1138.0	56.8
0°-60°	1730.1	86.4
0°-90°	2003.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2003.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1100	1100	1100	1100	1100	
5°	1062	1078	1076	1084	1097	99
15°	918	941	963	1007	1044	257
25°	732	760	798	860	923	336
35°	526	556	609	690	767	328
45°	314	346	419	521	612	247
55°	204	211	248	354	431	183
65°	132	134	154	187	232	131
75°	72	80	81	80	77	76
85°	21	24	23	22	17	24
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1100.2	1100.2	1100.2	1100.2	1100.2
2.5°	1086.3	1100.2	1092.1	1094.4	1097.9
5°	1062.1	1078.3	1076.0	1084.0	1096.7
7.5°	1032.1	1049.4	1052.9	1071.3	1089.8
10°	997.5	1017.1	1026.4	1054.1	1077.1
12.5°	959.5	980.2	996.4	1031.0	1064.4
15°	918.0	941.0	962.9	1006.8	1043.7
17.5°	875.3	898.4	927.2	975.6	1017.1
20°	829.2	854.5	888.0	938.7	988.3
22.5°	781.9	808.4	844.2	899.5	957.2
25°	732.3	760.0	798.0	860.3	922.6
27.5°	682.7	710.4	753.1	818.8	886.8
30°	630.8	659.6	705.8	777.3	845.3
32.5°	578.9	610.1	657.3	733.5	806.1
35°	525.9	555.9	608.9	689.6	766.9
37.5°	472.8	504.0	560.5	647.0	727.7
40°	418.6	450.9	513.2	604.3	688.5
42.5°	364.4	399.0	464.8	560.5	649.3
45°	313.7	346.0	418.6	521.3	612.4
47.5°	275.6	297.5	372.5	483.2	570.8
50°	246.8	258.3	327.5	441.7	521.3
52.5°	224.9	233.0	286.0	396.7	480.9
55°	204.1	211.0	247.9	354.0	431.3
57.5°	185.7	189.1	219.1	312.5	384.0
60°	166.1	169.5	194.9	267.5	329.8
62.5°	148.8	151.1	175.3	224.9	280.2
65°	131.5	133.8	154.5	186.8	231.8
67.5°	115.3	118.8	134.9	152.2	184.5
70°	99.2	106.1	115.3	123.4	141.8
72.5°	85.3	92.3	96.9	99.2	100.3
75°	71.5	79.6	80.7	79.6	77.3
77.5°	57.7	64.6	64.6	62.3	60.0
80°	45.0	50.7	49.6	47.3	43.8
82.5°	33.4	36.9	35.8	33.4	30.0
85°	20.8	24.2	23.1	21.9	17.3
87.5°	10.4	13.8	12.7	11.5	6.9
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)