

Cooper Lighting Solutions Photometric Lab
1121 Highway 74 South
Peachtree City, GA 30269



Scaled data based on original data using
LM-79-2024 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: S124RDRP-S1020D950-X4F0-XX-UDD-WVL-S

Issue Date: 8/7/2025

Test Information

Test Method: LM-79-2024
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: S124RDRP-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

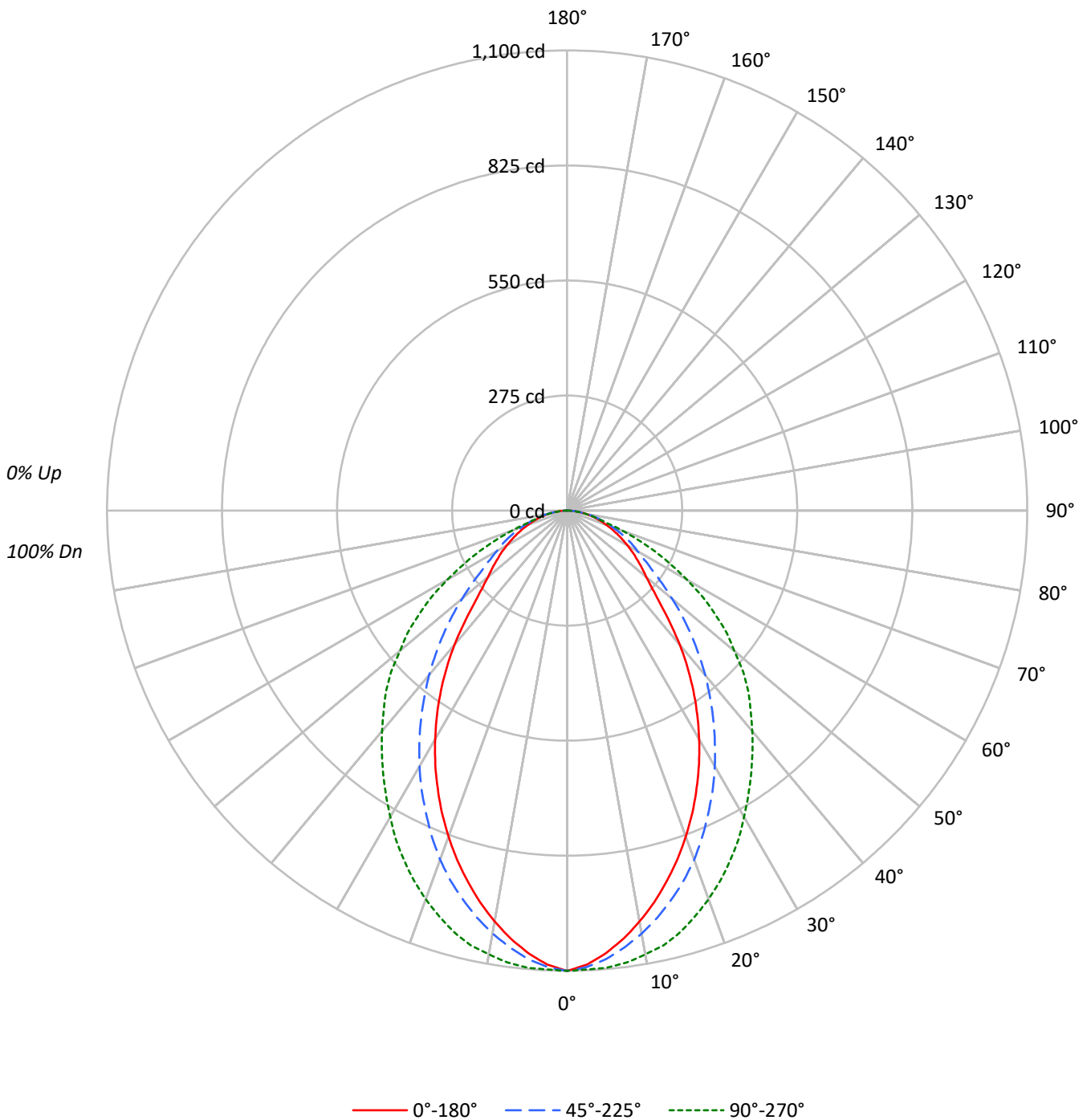
Lumens per Lamp: N/A
Luminaire Lumens: 2003.0 lumens
Efficiency: N/A
Efficacy: 57.2 lumens/watt
Spacing Criteria (0/90/45): 0.93 / 1.15 / 1.1
Luminous Opening: Rectangular (W 0.31' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 35
Input Voltage (V): 120
Input Current (A_{in}): 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: S124RDRP-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	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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CATALOG NUMBER: S124RDRP-S1020D950-X4F0-XX-UDD-WVL-S

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



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CIE UGR TABLE:

Reflectances:											
Ceiling		0.7	0.7	0.5	0.5	0.3	0.7	0.7	0.5	0.5	0.3
Wall		0.5	0.3	0.5	0.3	0.3	0.5	0.3	0.5	0.3	0.3
Reference plane		0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
Room dimensions		Viewed crosswise					Viewed endwise				
X=2H	Y=2H	14.24	15.73	14.61	16.04	16.36	18.02	19.50	18.38	19.81	20.13
	3H	15.90	17.23	16.28	17.56	17.92	19.13	20.46	19.51	20.79	21.15
	4H	16.57	17.82	16.97	18.16	18.54	19.42	20.67	19.82	21.02	21.40
	6H	17.08	18.23	17.50	18.60	18.99	19.62	20.77	20.03	21.14	21.53
	8H	17.26	18.36	17.69	18.75	19.15	19.67	20.77	20.10	21.16	21.56
	12H	17.39	18.44	17.82	18.82	19.25	19.70	20.75	20.13	21.13	21.56
4H	2H	15.03	16.27	15.43	16.62	17.00	18.18	19.42	18.58	19.77	20.15
	3H	16.89	17.92	17.30	18.32	18.72	19.49	20.52	19.90	20.92	21.32
	4H	17.70	18.63	18.13	19.04	19.48	19.90	20.83	20.33	21.24	21.68
	6H	18.34	19.15	18.80	19.60	20.06	20.21	21.02	20.67	21.46	21.92
	8H	18.57	19.33	19.04	19.77	20.24	20.30	21.06	20.77	21.50	21.97
	12H	18.74	19.42	19.23	19.90	20.37	20.37	21.04	20.85	21.52	21.99
8H	4H	18.05	18.80	18.51	19.25	19.71	20.03	20.78	20.49	21.23	21.70
	6H	18.84	19.46	19.34	19.96	20.43	20.44	21.06	20.94	21.56	22.03
	8H	19.16	19.72	19.68	20.23	20.72	20.59	21.15	21.11	21.66	22.15
	12H	19.43	19.92	19.94	20.41	20.98	20.72	21.21	21.23	21.70	22.27
12H	4H	18.08	18.75	18.56	19.23	19.70	20.03	20.71	20.52	21.19	21.66
	6H	18.90	19.46	19.42	19.97	20.46	20.46	21.02	20.98	21.53	22.02
	8H	19.29	19.78	19.80	20.28	20.84	20.67	21.16	21.18	21.65	22.22