

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: P1060481

Luminaire Tested: S124RDRP-S575D840-X4F0-XX-UDD-BVL-S

Issue Date: 8/7/2025

Test Information

Test Method: LM-79-2024
Report Number: P1060481
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2406-143-78)
Test Lab: INNOVATION CENTER
Issue Date: 8/7/2025
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: NEO-RAY
Catalog Number: S124RDRP-S575D840-X4F0-XX-UDD-BVL-S
Description: DEFINE 4 SILVER REGRESSED DIRECT RECESSED HOUSING WITH BLACK STRAIGHT BLADE
LOUVER WITH DIFFUSER
CORE LIGHT ENGINE
Light Source: 4000K CCT, 80 CRI LEDS
Ballast/Driver: -

Summary

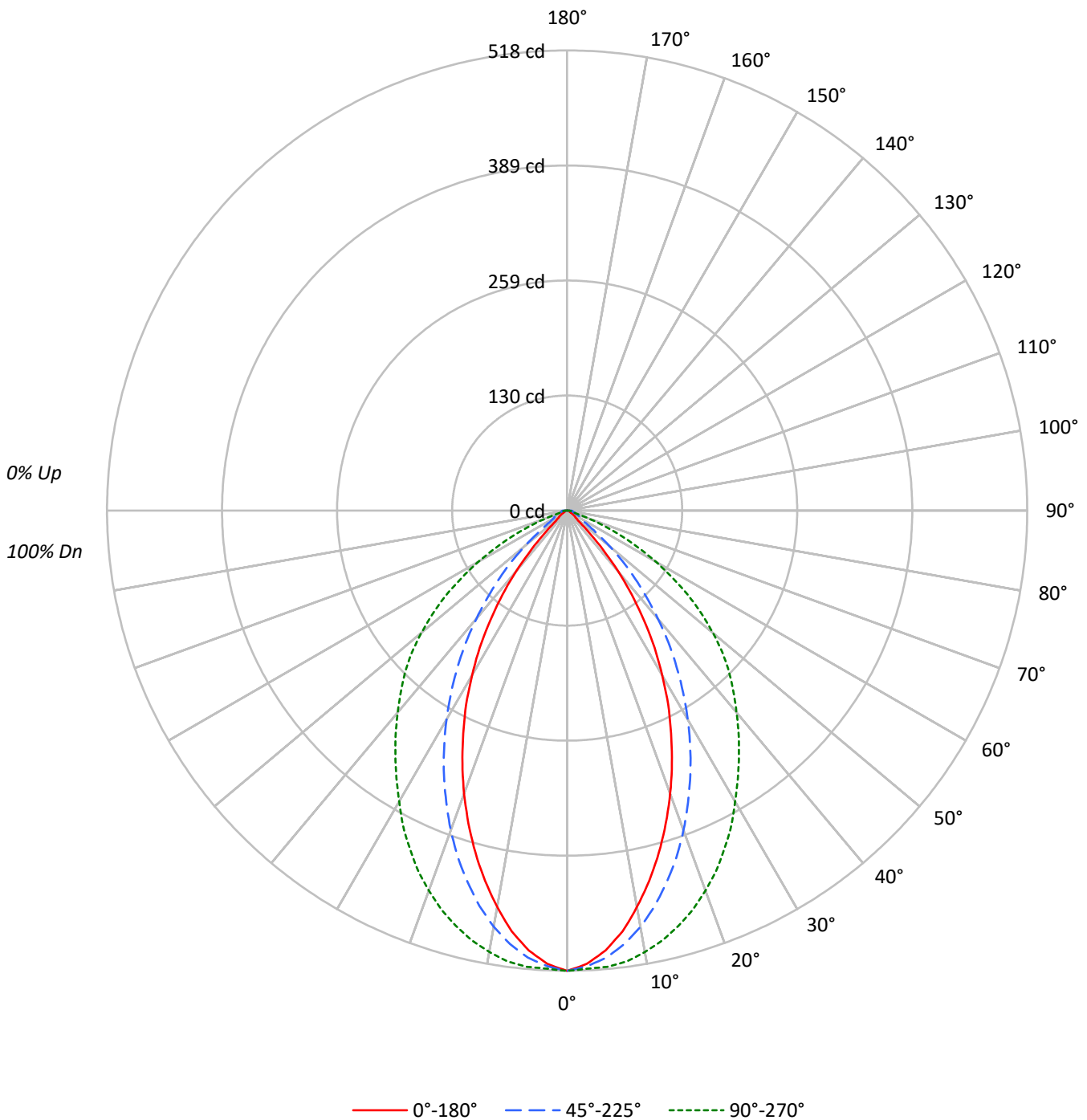
Lumens per Lamp: N/A
Luminaire Lumens: 650.4 lumens
Efficiency: N/A
Efficacy: 33.2 lumens/watt
Spacing Criteria (0/90/45): 0.79 / 1.11 / 0.97
Luminous Opening: Rectangular (W 0.31' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 19.6
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: P1060481

CATALOG NUMBER: S124RDRP-S575D840-X4F0-XX-UDD-BVL-S

Luminous Intensity Polar Plot





TEST NUMBER: P1060481

CATALOG NUMBER: S124RDRP-S575D840-X4F0-XX-UDD-BVL-S

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	0
RCR																		
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100
1	112	108	105	102	109	106	103	101	102	100	98	98	96	95	95	93	92	90
2	105	99	94	89	102	97	92	88	93	90	86	90	87	84	87	85	83	81
3	98	90	84	79	96	88	83	78	86	81	77	83	79	76	81	77	74	73
4	92	82	75	70	90	81	75	70	79	73	69	77	72	68	75	71	67	65
5	86	76	68	63	84	75	68	63	73	67	62	71	66	62	69	65	61	59
6	80	70	62	57	79	69	62	57	67	61	57	66	60	56	64	59	56	54
7	76	64	57	52	74	64	57	52	62	56	52	61	56	51	60	55	51	50
8	71	60	53	48	70	59	53	48	58	52	48	57	51	47	56	51	47	46
9	67	56	49	44	66	55	49	44	54	48	44	53	48	44	52	47	44	42
10	64	52	46	41	62	52	45	41	51	45	41	50	45	41	49	44	41	39

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	4462	4462	4462
5°	4295	4367	4456
10°	3961	4160	4411
15°	3555	3861	4314
20°	3107	3510	4170
25°	2628	3117	3985
30°	2123	2703	3761
35°	1580	2258	3543
40°	1003	1790	3333
45°	401	1313	3143
50°	174	837	2868
55°	134	432	2504
60°	95	296	1986
65°	69	293	1357
70°	68	259	622
75°	90	273	253
80°	134	307	273
85°	267	543	405

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°
 Vertical Angle: 45°
 Luminance: 3143 cd/sqm



TEST NUMBER: P1060481

CATALOG NUMBER: S124RDRP-S575D840-X4F0-XX-UDD-BVL-S

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	47.4	7.3
10°-20°	122.4	18.8
20°-30°	154.5	23.8
30°-40°	141.9	21.8
40°-50°	96.8	14.9
50°-60°	52.5	8.1
60°-70°	22.3	3.4
70°-80°	7.7	1.2
80°-90°	4.9	0.8
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°	324.3	49.9
0°-40°	466.3	71.7
0°-60°	615.5	94.6
0°-90°	650.4	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	650.4	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	518	518	518	518	518	
5°	497	504	505	509	516	46
15°	399	412	433	464	484	111
25°	277	294	328	379	419	126
35°	150	170	215	282	337	93
45°	33	53	108	191	258	30
55°	9	10	29	105	167	8
65°	3	4	14	33	67	4
75°	3	8	8	8	8	3
85°	3	6	6	6	4	2
90°	0	0	0	0	0	



TEST NUMBER: P1060481

CATALOG NUMBER: S124RDRP-S575D840-X4F0-XX-UDD-BVL-S

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	518.2	518.2	518.2	518.2	518.2
2.5°	510.7	516.8	513.4	514.8	516.2
5°	496.9	504.5	505.2	509.3	515.5
7.5°	477.7	486.6	492.1	502.4	512.0
10°	453.0	464.0	475.7	492.1	504.5
12.5°	426.9	438.6	455.8	479.1	495.6
15°	398.8	411.8	433.1	464.0	483.9
17.5°	369.3	383.7	409.1	445.5	470.9
20°	339.1	354.9	383.0	424.2	455.1
22.5°	308.2	324.7	355.5	402.2	438.6
25°	276.6	294.5	328.1	378.9	419.4
27.5°	246.4	262.9	299.9	355.5	400.2
30°	213.5	232.0	271.8	331.5	378.2
32.5°	183.3	201.1	243.0	306.8	357.6
35°	150.3	170.2	214.8	282.1	337.0
37.5°	119.4	138.6	187.4	258.8	317.1
40°	89.2	109.1	159.2	235.4	296.5
42.5°	59.7	81.0	132.5	211.4	277.3
45°	32.9	52.9	107.8	190.8	258.1
47.5°	17.2	28.8	84.4	170.2	237.5
50°	13.0	15.8	62.5	147.6	214.1
52.5°	11.0	11.7	42.6	124.9	190.8
55°	8.9	9.6	28.8	105.0	166.8
57.5°	6.9	7.6	20.6	85.8	140.0
60°	5.5	6.2	17.2	65.9	115.3
62.5°	4.1	4.8	16.5	48.7	90.6
65°	3.4	4.1	14.4	32.9	66.6
67.5°	2.7	4.1	12.4	21.3	44.6
70°	2.7	5.5	10.3	13.7	24.7
72.5°	2.7	6.2	8.9	8.9	8.9
75°	2.7	7.6	8.2	7.6	7.6
77.5°	2.7	6.9	6.9	6.9	6.9
80°	2.7	6.2	6.2	6.2	5.5
82.5°	2.7	5.5	6.2	6.2	4.8
85°	2.7	5.5	5.5	5.5	4.1
87.5°	2.1	5.5	5.5	5.5	2.7
90°	0.0	0.0	0.0	0.0	0.0



TEST NUMBER: P1060481
 CATALOG NUMBER: S124RDRP-S575D840-X4F0-XX-UDD-BVL-S

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	0.00	0.00	0.00	0.00	0.00	13.64	14.91	14.00	15.23	15.54
	3H	0.00	0.00	0.00	0.00	0.00	13.99	15.12	14.37	15.45	15.82
	4H	0.00	0.00	0.00	0.00	0.32	13.96	15.01	14.36	15.36	15.75
	6H	0.00	0.85	0.30	1.22	1.62	13.94	14.90	14.35	15.27	15.66
	8H	0.56	1.47	0.99	1.86	2.27	13.93	14.84	14.36	15.23	15.63
	12H	1.35	2.22	1.78	2.60	3.03	13.92	14.79	14.36	15.18	15.61
4H	2H	0.00	0.40	0.00	0.75	1.13	13.44	14.49	13.84	14.84	15.23
	3H	0.76	1.62	1.18	2.02	2.43	13.84	14.69	14.25	15.10	15.50
	4H	2.22	2.98	2.65	3.40	3.85	13.82	14.58	14.25	15.00	15.44
	6H	3.46	4.12	3.92	4.56	5.03	13.84	14.49	14.30	14.94	15.41
	8H	4.02	4.63	4.49	5.08	5.55	13.85	14.46	14.32	14.91	15.38
	12H	4.68	5.23	5.17	5.71	6.18	13.88	14.42	14.37	14.91	15.38
8H	4H	3.29	3.91	3.76	4.36	4.83	13.72	14.33	14.19	14.78	15.25
	6H	4.90	5.41	5.41	5.90	6.39	13.77	14.27	14.27	14.77	15.25
	8H	5.73	6.18	6.26	6.70	7.19	13.83	14.28	14.35	14.79	15.29
	12H	6.69	7.09	7.21	7.59	8.16	13.94	14.34	14.46	14.84	15.41
12H	4H	3.48	4.03	3.97	4.51	4.98	13.68	14.22	14.17	14.71	15.18
	6H	5.25	5.70	5.77	6.22	6.71	13.74	14.19	14.26	14.70	15.20
	8H	6.27	6.67	6.78	7.16	7.74	13.84	14.24	14.36	14.74	15.31