

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: P1060562

Luminaire Tested: S124RDRP-S795D840-X4F0-XX-UDD-BVL-S

Issue Date: 8/7/2025

**Test Information**

Test Method: LM-79-2024  
Report Number: P1060562  
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-S795D840-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: -

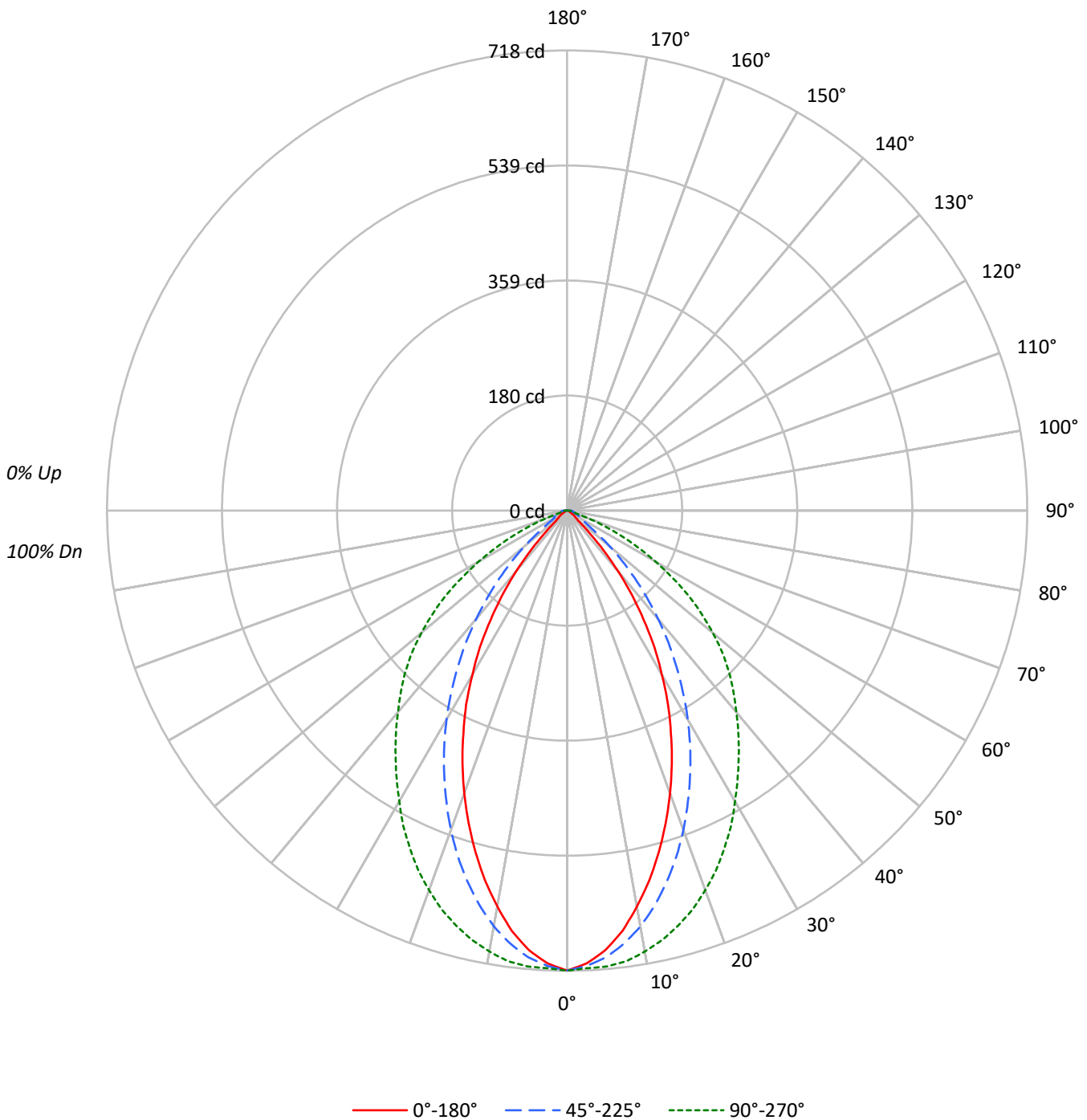
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 900.7 lumens  
Efficiency: N/A  
Efficacy: 34.9 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): 25.8  
Input Voltage (V): 120  
Input Current (A<sub>in</sub>): 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: P1060562

CATALOG NUMBER: S124RDRP-S795D840-X4F0-XX-UDD-BVL-S

### Luminous Intensity Polar Plot



TEST NUMBER: P1060562

CATALOG NUMBER: S124RDRP-S795D840-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	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°	6179	6179	6179
5°	5948	6046	6170
10°	5485	5760	6109
15°	4923	5346	5974
20°	4302	4860	5775
25°	3639	4316	5517
30°	2939	3743	5207
35°	2189	3127	4906
40°	1389	2479	4616
45°	555	1817	4352
50°	242	1159	3972
55°	186	599	3468
60°	131	410	2750
65°	98	408	1879
70°	96	360	861
75°	126	379	349
80°	188	426	377
85°	375	751	563

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 90°  
 Vertical Angle: 45°  
 Luminance: 4352 cd/sqm



TEST NUMBER: P1060562

CATALOG NUMBER: S124RDRP-S795D840-X4F0-XX-UDD-BVL-S

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	65.7	7.3
10°-20°	169.4	18.8
20°-30°	214.0	23.8
30°-40°	196.6	21.8
40°-50°	134.0	14.9
50°-60°	72.7	8.1
60°-70°	30.8	3.4
70°-80°	10.7	1.2
80°-90°	6.8	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°	449.1	49.9
0°-40°	645.7	71.7
0°-60°	852.4	94.6
0°-90°	900.7	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	900.7	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	718	718	718	718	718	
5°	688	699	700	705	714	64
15°	552	570	600	642	670	154
25°	383	408	454	525	581	175
35°	208	236	298	391	467	129
45°	46	73	149	264	357	42
55°	12	13	40	145	231	11
65°	5	6	20	46	92	5
75°	4	10	11	10	10	4
85°	4	8	8	8	6	3
90°	0	0	0	0	0	



TEST NUMBER: P1060562

CATALOG NUMBER: S124RDRP-S795D840-X4F0-XX-UDD-BVL-S

**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	717.6	717.6	717.6	717.6	717.6
2.5°	707.2	715.7	711.0	712.9	714.8
5°	688.1	698.6	699.5	705.2	713.8
7.5°	661.5	673.9	681.5	695.7	709.1
10°	627.3	642.5	658.7	681.5	698.6
12.5°	591.2	607.4	631.1	663.4	686.2
15°	552.2	570.3	599.7	642.5	670.1
17.5°	511.4	531.3	566.5	616.9	652.0
20°	469.5	491.4	530.4	587.4	630.2
22.5°	426.8	449.6	492.3	557.0	607.4
25°	383.0	407.8	454.3	524.7	580.7
27.5°	341.2	364.0	415.4	492.3	554.1
30°	295.6	321.3	376.4	459.1	523.7
32.5°	253.8	278.5	336.5	424.9	495.2
35°	208.2	235.7	297.5	390.6	466.7
37.5°	165.4	192.0	259.5	358.3	439.1
40°	123.6	151.1	220.5	326.0	410.6
42.5°	82.7	112.2	183.4	292.7	384.0
45°	45.6	73.2	149.2	264.2	357.4
47.5°	23.8	39.9	116.9	235.7	328.9
50°	18.1	21.9	86.5	204.4	296.5
52.5°	15.2	16.2	58.9	173.0	264.2
55°	12.4	13.3	39.9	145.4	231.0
57.5°	9.5	10.5	28.5	118.8	193.9
60°	7.6	8.6	23.8	91.2	159.7
62.5°	5.7	6.7	22.8	67.5	125.5
65°	4.8	5.7	20.0	45.6	92.2
67.5°	3.8	5.7	17.1	29.5	61.8
70°	3.8	7.6	14.3	19.0	34.2
72.5°	3.8	8.6	12.4	12.4	12.4
75°	3.8	10.5	11.4	10.5	10.5
77.5°	3.8	9.5	9.5	9.5	9.5
80°	3.8	8.6	8.6	8.6	7.6
82.5°	3.8	7.6	8.6	8.6	6.7
85°	3.8	7.6	7.6	7.6	5.7
87.5°	2.9	7.6	7.6	7.6	3.8
90°	0.0	0.0	0.0	0.0	0.0



TEST NUMBER: P1060562  
 CATALOG NUMBER: S124RDRP-S795D840-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	14.77	16.04	15.13	16.36	16.67
	3H	0.00	0.00	0.00	0.00	0.12	15.12	16.25	15.51	16.58	16.95
	4H	0.00	0.73	0.09	1.08	1.47	15.09	16.14	15.50	16.49	16.88
	6H	1.05	2.01	1.46	2.38	2.78	15.07	16.03	15.48	16.40	16.79
	8H	1.73	2.64	2.16	3.03	3.43	15.06	15.97	15.49	16.36	16.76
	12H	2.53	3.40	2.96	3.78	4.21	15.05	15.92	15.49	16.31	16.74
4H	2H	0.48	1.53	0.89	1.88	2.27	14.57	15.62	14.98	15.97	16.36
	3H	1.90	2.76	2.32	3.16	3.57	14.97	15.82	15.38	16.23	16.63
	4H	3.36	4.12	3.79	4.54	4.99	14.95	15.71	15.38	16.13	16.58
	6H	4.60	5.26	5.06	5.71	6.17	14.97	15.63	15.43	16.07	16.54
	8H	5.17	5.78	5.64	6.23	6.70	14.98	15.59	15.45	16.04	16.51
	12H	5.84	6.38	6.33	6.87	7.34	15.01	15.56	15.50	16.04	16.51
8H	4H	4.43	5.04	4.90	5.49	5.96	14.85	15.46	15.32	15.91	16.38
	6H	6.04	6.54	6.54	7.04	7.52	14.90	15.40	15.40	15.90	16.38
	8H	6.87	7.32	7.40	7.84	8.33	14.96	15.41	15.48	15.93	16.42
	12H	7.83	8.23	8.35	8.73	9.30	15.07	15.47	15.59	15.97	16.54
12H	4H	4.62	5.16	5.11	5.64	6.12	14.81	15.35	15.30	15.84	16.31
	6H	6.39	6.84	6.91	7.36	7.85	14.87	15.32	15.39	15.84	16.33
	8H	7.41	7.81	7.92	8.30	8.87	14.97	15.37	15.49	15.87	16.44