

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



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: P1060970

Luminaire Tested: S124RDR-H795D840-X4F0-XX-UDD-SVL-S

Issue Date: 8/7/2025

Test Information

Test Method: LM-79-2019
Report Number: P1060970
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2406-143-77)
Test Lab: INNOVATION CENTER
Issue Date: 8/7/2025
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: NEO-RAY
Catalog Number: S124RDR-H795D840-X4F0-XX-UDD-SVL-S
Description: DEFINE 4 SILVER REGRESSED DIRECT RECESSED HOUSING WITH SILVER STRAIGHT BLADE
LOUVER WITH DIFFUSER
HIGH PERFORMANCE LIGHT ENGINE
Light Source: 4000K CCT, 80 CRI LEDS
Ballast/Driver: -

Summary

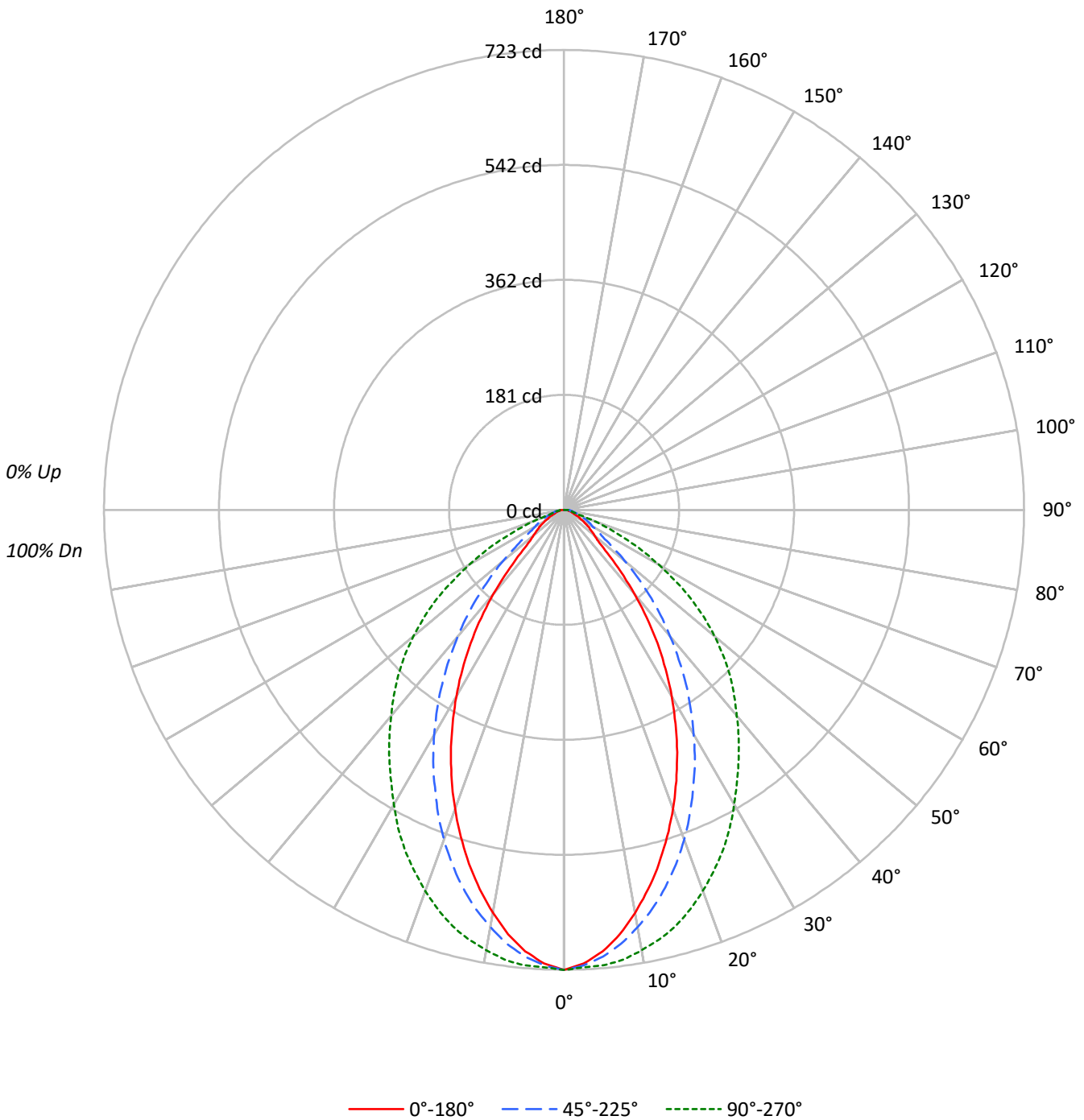
Lumens per Lamp: N/A
Luminaire Lumens: 1017.0 lumens
Efficiency: N/A
Efficacy: 43.3 lumens/watt
Spacing Criteria (0/90/45): 0.83 / 1.12 / 1.01
Luminous Opening: Rectangular (W 0.31' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 23.5
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: P1060970

CATALOG NUMBER: S124RDR-H795D840-X4F0-XX-UDD-SVL-S

Luminous Intensity Polar Plot





TEST NUMBER: P1060970

CATALOG NUMBER: S124RDR-H795D840-X4F0-XX-UDD-SVL-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			100	
1	111	108	105	102	109	106	103	100	101	99	97	98	96	94	94	93	91	89			89	
2	104	97	92	88	101	96	91	87	92	88	85	89	86	83	86	83	81	79			79	
3	97	88	82	77	94	87	81	76	84	79	75	81	77	73	79	75	72	70			70	
4	90	80	73	68	88	79	72	67	77	71	67	75	70	66	73	68	65	63			63	
5	84	73	66	61	82	72	65	60	70	64	60	69	63	59	67	62	59	57			57	
6	79	68	60	55	77	67	60	54	65	59	54	63	58	54	62	57	53	51			51	
7	74	62	55	50	72	62	54	49	60	54	49	59	53	49	58	52	49	47			47	
8	69	58	50	45	68	57	50	45	56	49	45	55	49	45	54	48	45	43			43	
9	65	54	47	42	64	53	46	42	52	46	41	51	45	41	50	45	41	39			39	
10	62	50	43	39	61	50	43	38	49	43	38	48	42	38	47	42	38	36			36	

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	6228	6228	6228
5°	6021	6093	6212
10°	5624	5825	6147
15°	5136	5480	6038
20°	4587	5059	5844
25°	3995	4564	5613
30°	3367	4054	5316
35°	2689	3511	5030
40°	1935	2917	4748
45°	1165	2297	4494
50°	839	1664	4130
55°	704	1118	3662
60°	570	887	2948
65°	450	807	2119
70°	393	672	1135
75°	366	612	552
80°	367	640	501
85°	543	909	632

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°
 Vertical Angle: 45°
 Luminance: 4494 cd/sqm



TEST NUMBER: P1060970

CATALOG NUMBER: S124RDR-H795D840-X4F0-XX-UDD-SVL-S

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	66.4	6.5
10°-20°	174.0	17.1
20°-30°	225.7	22.2
30°-40°	217.0	21.3
40°-50°	161.0	15.8
50°-60°	98.6	9.7
60°-70°	47.9	4.7
70°-80°	18.2	1.8
80°-90°	8.2	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°	466.1	45.8
0°-40°	683.1	67.2
0°-60°	942.7	92.7
0°-90°	1017.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1017.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	723	723	723	723	723	
5°	697	707	705	711	719	65
15°	576	593	615	652	677	161
25°	420	442	480	542	591	192
35°	256	279	334	413	478	158
45°	96	120	189	288	369	79
55°	47	49	74	168	244	42
65°	22	24	40	63	104	23
75°	11	18	18	17	17	12
85°	6	9	9	8	6	5
90°	0	0	0	0	0	



TEST NUMBER: P1060970

CATALOG NUMBER: S124RDR-H795D840-X4F0-XX-UDD-SVL-S

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	723.3	723.3	723.3	723.3	723.3
2.5°	714.1	722.4	716.8	718.7	719.6
5°	696.6	706.7	704.9	711.3	718.7
7.5°	672.7	684.6	688.3	701.2	713.2
10°	643.2	658.0	666.2	687.4	703.0
12.5°	611.0	626.7	642.3	670.8	692.0
15°	576.1	592.6	614.7	651.5	677.3
17.5°	539.2	557.6	584.3	628.5	658.9
20°	500.6	519.9	552.1	600.9	637.7
22.5°	461.0	481.3	517.2	571.5	614.7
25°	420.5	441.7	480.4	542.0	590.8
27.5°	379.1	401.2	445.4	510.7	564.1
30°	338.6	359.8	407.7	478.5	534.6
32.5°	297.2	319.3	370.8	445.4	506.1
35°	255.8	278.8	334.0	413.2	478.5
37.5°	213.5	238.3	296.3	381.9	450.9
40°	172.1	196.0	259.5	349.7	422.4
42.5°	131.6	157.4	224.5	317.5	395.7
45°	95.7	119.6	188.6	288.0	369.0
47.5°	71.8	86.5	155.5	260.4	339.6
50°	62.6	65.3	124.2	230.1	308.3
52.5°	54.3	56.1	96.6	196.9	277.0
55°	46.9	48.8	74.5	168.4	243.9
57.5°	39.6	41.4	59.8	140.8	206.1
60°	33.1	35.0	51.5	112.3	171.2
62.5°	27.6	28.5	46.0	85.6	137.1
65°	22.1	23.9	39.6	62.6	104.0
67.5°	18.4	20.2	32.2	43.3	72.7
70°	15.6	20.2	26.7	30.4	45.1
72.5°	12.9	18.4	22.1	21.2	21.2
75°	11.0	17.5	18.4	16.6	16.6
77.5°	9.2	15.6	14.7	13.8	12.9
80°	7.4	12.9	12.9	11.0	10.1
82.5°	6.4	10.1	10.1	10.1	8.3
85°	5.5	9.2	9.2	8.3	6.4
87.5°	3.7	7.4	8.3	7.4	4.6
90°	0.0	0.0	0.0	0.0	0.0



TEST NUMBER: P1060970
 CATALOG NUMBER: S124RDR-H795D840-X4F0-XX-UDD-SVL-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	6.17	7.51	6.53	7.82	8.13	15.27	16.61	15.63	16.92	17.23
	3H	7.21	8.40	7.59	8.73	9.09	15.77	16.96	16.15	17.29	17.65
	4H	7.72	8.83	8.13	9.18	9.56	15.78	16.89	16.19	17.24	17.62
	6H	8.18	9.19	8.59	9.56	9.96	15.78	16.80	16.20	17.17	17.56
	8H	8.36	9.33	8.79	9.72	10.12	15.78	16.74	16.21	17.13	17.54
	12H	8.58	9.50	9.01	9.88	10.31	15.78	16.70	16.21	17.08	17.51
4H	2H	7.26	8.37	7.67	8.72	9.10	15.16	16.26	15.56	16.61	17.00
	3H	8.53	9.44	8.94	9.84	10.24	15.74	16.64	16.15	17.04	17.45
	4H	9.24	10.05	9.67	10.47	10.91	15.78	16.59	16.22	17.01	17.45
	6H	9.87	10.57	10.33	11.01	11.48	15.84	16.54	16.30	16.98	17.45
	8H	10.11	10.77	10.58	11.21	11.68	15.85	16.51	16.32	16.95	17.42
	12H	10.39	10.96	10.87	11.45	11.92	15.89	16.46	16.37	16.95	17.42
8H	4H	9.66	10.32	10.13	10.76	11.23	15.73	16.39	16.20	16.83	17.30
	6H	10.54	11.08	11.04	11.57	12.05	15.83	16.36	16.33	16.86	17.34
	8H	10.95	11.43	11.47	11.94	12.43	15.89	16.37	16.41	16.88	17.37
	12H	11.42	11.85	11.94	12.34	12.91	15.99	16.41	16.50	16.91	17.48
12H	4H	9.71	10.28	10.19	10.77	11.24	15.70	16.28	16.19	16.77	17.24
	6H	10.65	11.13	11.17	11.65	12.14	15.80	16.29	16.33	16.80	17.29
	8H	11.17	11.59	11.68	12.09	12.66	15.91	16.33	16.42	16.83	17.40