

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: P1060958

Luminaire Tested: S124RDR-H795D835-X4F0-XX-UDD-BVL-S

Issue Date: 8/7/2025

Test Information

Test Method: LM-79-2019
Report Number: P1060958
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: S124RDR-H795D835-X4F0-XX-UDD-BVL-S
Description: DEFINE 4 SILVER REGRESSED DIRECT RECESSED HOUSING WITH BLACK STRAIGHT BLADE LOUVER WITH DIFFUSER
HIGH PERFORMANCE LIGHT ENGINE
Light Source: 3500K CCT, 80 CRI LEDS
Ballast/Driver: -

Summary

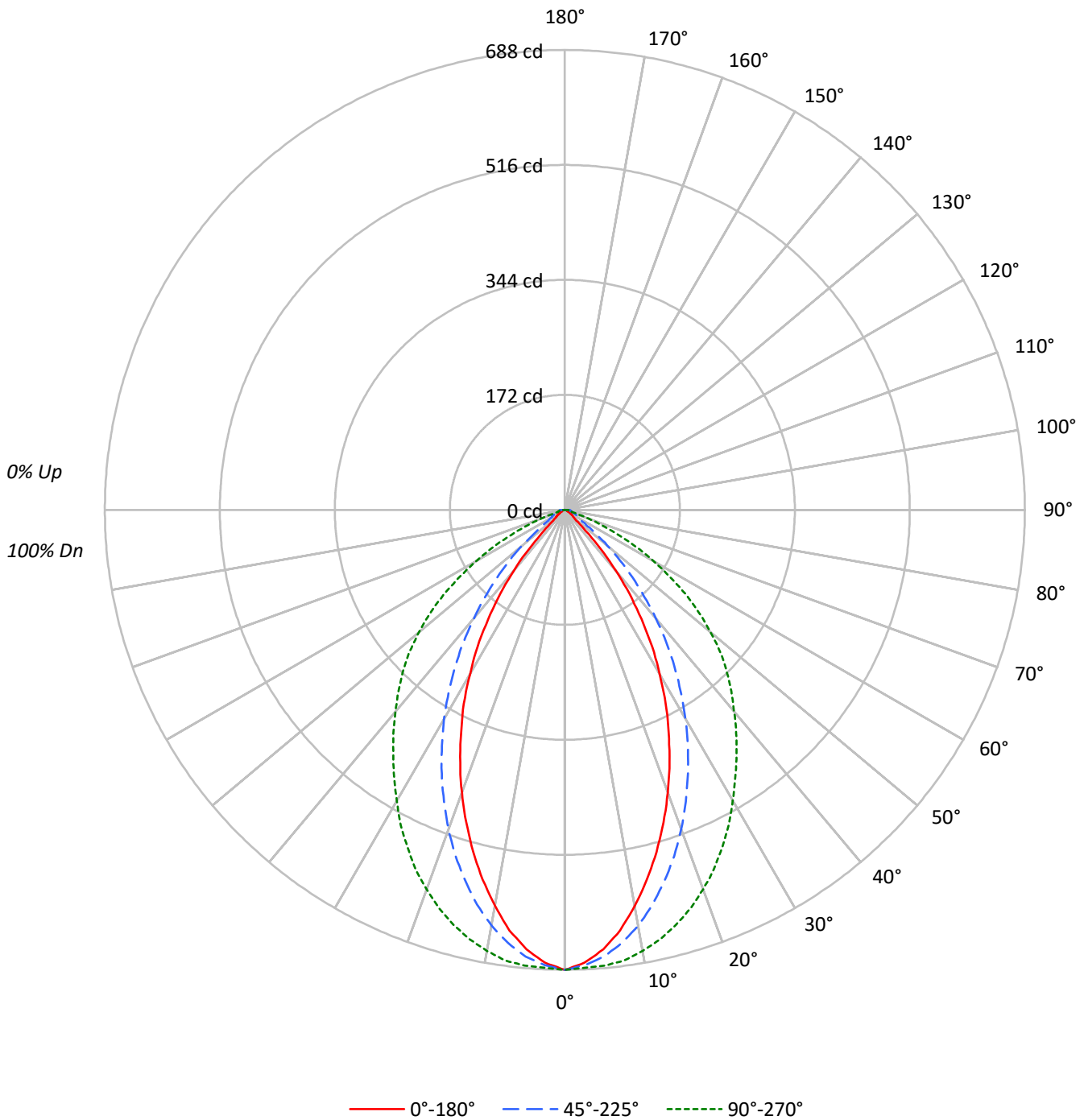
Lumens per Lamp: N/A
Luminaire Lumens: 863.6 lumens
Efficiency: N/A
Efficacy: 36.7 lumens/watt
Spacing Criteria (0/90/45): 0.79 / 1.11 / 0.97
Luminous Opening: Rectangular (W 0.31' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 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: P1060958

CATALOG NUMBER: S124RDR-H795D835-X4F0-XX-UDD-BVL-S

Luminous Intensity Polar Plot





TEST NUMBER: P1060958

CATALOG NUMBER: S124RDR-H795D835-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	103	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°	5925	5925	5925
5°	5704	5798	5917
10°	5259	5523	5858
15°	4720	5127	5728
20°	4126	4661	5538
25°	3490	4140	5291
30°	2819	3589	4994
35°	2098	2999	4704
40°	1332	2376	4426
45°	532	1743	4173
50°	232	1111	3810
55°	177	575	3325
60°	126	393	2637
65°	94	389	1801
70°	91	345	826
75°	120	363	333
80°	179	407	362
85°	356	721	543

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°
 Vertical Angle: 45°
 Luminance: 4173 cd/sqm



TEST NUMBER: P1060958

CATALOG NUMBER: S124RDR-H795D835-X4F0-XX-UDD-BVL-S

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	63.0	7.3
10°-20°	162.5	18.8
20°-30°	205.2	23.8
30°-40°	188.5	21.8
40°-50°	128.5	14.9
50°-60°	69.7	8.1
60°-70°	29.6	3.4
70°-80°	10.2	1.2
80°-90°	6.5	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°	430.7	49.9
0°-40°	619.1	71.7
0°-60°	817.3	94.6
0°-90°	863.6	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	863.6	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	688	688	688	688	688	
5°	660	670	671	676	684	61
15°	530	547	575	616	642	148
25°	367	391	436	503	557	168
35°	200	226	285	375	448	124
45°	44	70	143	253	343	40
55°	12	13	38	139	222	11
65°	5	6	19	44	88	5
75°	4	10	11	10	10	4
85°	4	7	7	7	6	3
90°	0	0	0	0	0	



TEST NUMBER: P1060958

CATALOG NUMBER: S124RDR-H795D835-X4F0-XX-UDD-BVL-S

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	688.1	688.1	688.1	688.1	688.1
2.5°	678.1	686.3	681.7	683.6	685.4
5°	659.9	669.9	670.8	676.3	684.5
7.5°	634.3	646.2	653.5	667.2	679.9
10°	601.5	616.1	631.6	653.5	669.9
12.5°	566.9	582.4	605.2	636.2	658.0
15°	529.5	546.8	575.1	616.1	642.5
17.5°	490.3	509.5	543.2	591.5	625.2
20°	450.2	471.2	508.6	563.3	604.3
22.5°	409.2	431.1	472.1	534.1	582.4
25°	367.3	391.0	435.7	503.1	556.9
27.5°	327.2	349.1	398.3	472.1	531.4
30°	283.5	308.1	360.9	440.2	502.2
32.5°	243.3	267.0	322.6	407.4	474.8
35°	199.6	226.0	285.3	374.6	447.5
37.5°	158.6	184.1	248.8	343.6	421.1
40°	118.5	144.9	211.4	312.6	393.7
42.5°	79.3	107.5	175.9	280.7	368.2
45°	43.7	70.2	143.1	253.4	342.7
47.5°	22.8	38.3	112.1	226.0	315.4
50°	17.3	21.0	82.9	196.0	284.4
52.5°	14.6	15.5	56.5	165.9	253.4
55°	11.8	12.8	38.3	139.4	221.5
57.5°	9.1	10.0	27.3	113.9	185.9
60°	7.3	8.2	22.8	87.5	153.1
62.5°	5.5	6.4	21.9	64.7	120.3
65°	4.6	5.5	19.1	43.7	88.4
67.5°	3.6	5.5	16.4	28.3	59.2
70°	3.6	7.3	13.7	18.2	32.8
72.5°	3.6	8.2	11.8	11.8	11.8
75°	3.6	10.0	10.9	10.0	10.0
77.5°	3.6	9.1	9.1	9.1	9.1
80°	3.6	8.2	8.2	8.2	7.3
82.5°	3.6	7.3	8.2	8.2	6.4
85°	3.6	7.3	7.3	7.3	5.5
87.5°	2.7	7.3	7.3	7.3	3.6
90°	0.0	0.0	0.0	0.0	0.0



TEST NUMBER: P1060958
 CATALOG NUMBER: S124RDR-H795D835-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	14.62	15.90	14.99	16.21	16.53
	3H	0.00	0.00	0.00	0.00	0.00	14.98	16.11	15.36	16.44	16.80
	4H	0.00	0.55	0.00	0.90	1.28	14.94	15.99	15.35	16.34	16.73
	6H	0.86	1.82	1.27	2.19	2.58	14.92	15.88	15.33	16.25	16.65
	8H	1.53	2.44	1.96	2.83	3.24	14.91	15.82	15.34	16.21	16.62
	12H	2.33	3.20	2.76	3.58	4.01	14.91	15.78	15.34	16.16	16.59
4H	2H	0.31	1.36	0.71	1.71	2.09	14.43	15.47	14.83	15.83	16.21
	3H	1.73	2.59	2.15	2.99	3.40	14.82	15.68	15.23	16.08	16.48
	4H	3.18	3.94	3.61	4.36	4.81	14.80	15.56	15.24	15.98	16.43
	6H	4.42	5.08	4.88	5.53	5.99	14.82	15.48	15.28	15.92	16.39
	8H	4.99	5.60	5.46	6.05	6.52	14.83	15.44	15.30	15.89	16.36
	12H	5.66	6.20	6.14	6.68	7.16	14.87	15.41	15.35	15.89	16.37
8H	4H	4.25	4.87	4.72	5.32	5.79	14.70	15.31	15.17	15.76	16.23
	6H	5.86	6.37	6.37	6.86	7.35	14.75	15.25	15.25	15.75	16.23
	8H	6.70	7.15	7.22	7.67	8.16	14.81	15.26	15.33	15.78	16.27
	12H	7.66	8.06	8.18	8.56	9.13	14.92	15.32	15.44	15.82	16.39
12H	4H	4.44	4.99	4.93	5.47	5.94	14.66	15.20	15.15	15.69	16.16
	6H	6.21	6.66	6.74	7.18	7.67	14.72	15.17	15.24	15.69	16.18
	8H	7.23	7.63	7.75	8.13	8.70	14.82	15.22	15.34	15.72	16.29