

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: P1060960

Luminaire Tested: S124RDR-H795D835-X4F0-XX-UDD-SVL-B

Issue Date: 8/7/2025

Test Information

Test Method: LM-79-2019
Report Number: P1060960
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2406-143-38)
Test Lab: INNOVATION CENTER
Issue Date: 8/7/2025
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: NEO-RAY
Catalog Number: S124RDR-H795D835-X4F0-XX-UDD-SVL-B
Description: DEFINE 4 BLACK REGRESSED DIRECT RECESSED HOUSING WITH SILVER STRAIGHT BLADE
LOUVER WITH DIFFUSER
HIGH PERFORMANCE LIGHT ENGINE
Light Source: 3500K CCT, 80 CRI LEDS
Ballast/Driver: -

Summary

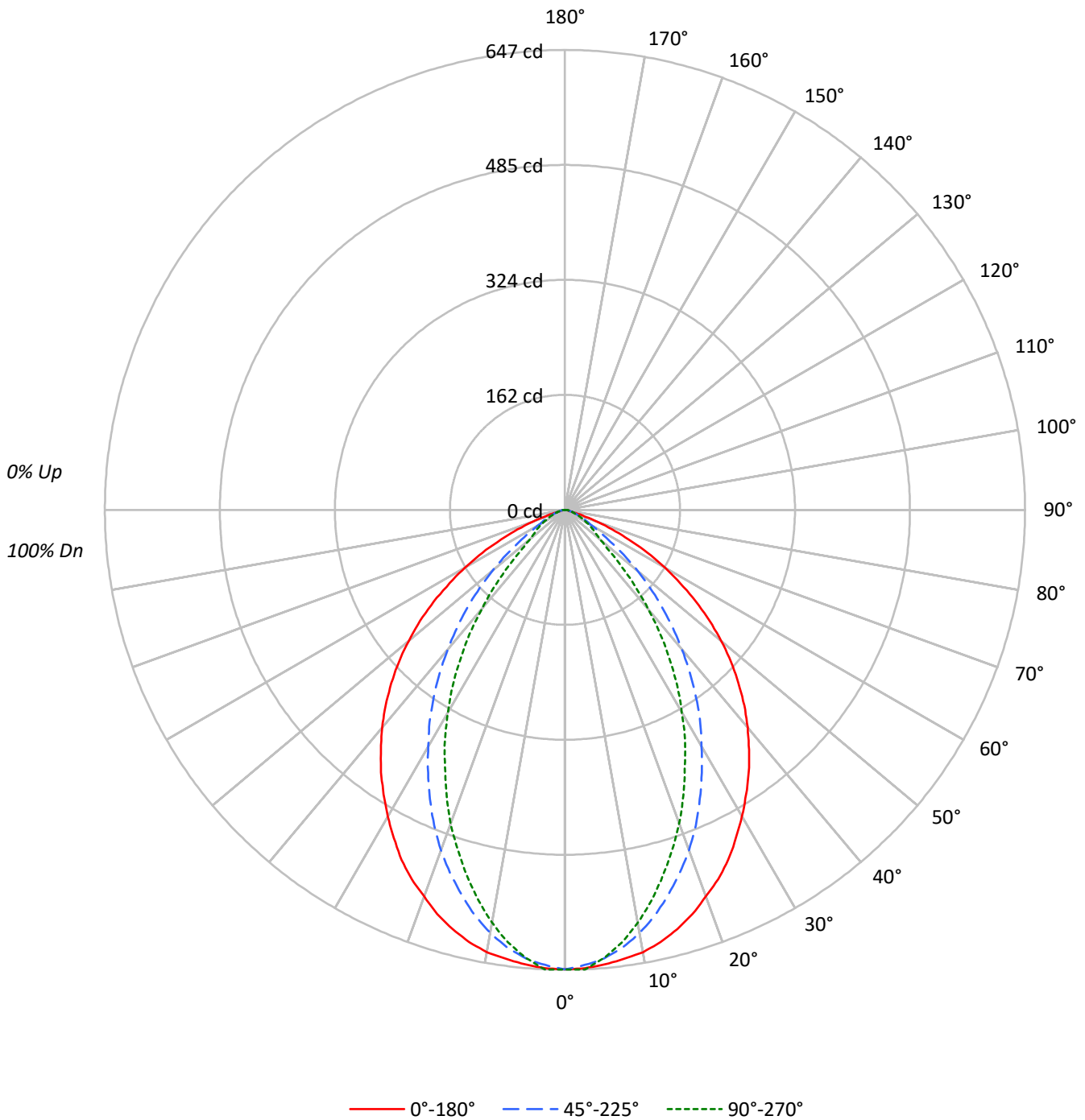
Lumens per Lamp: N/A
Luminaire Lumens: 953.0 lumens
Efficiency: N/A
Efficacy: 40.6 lumens/watt
Spacing Criteria (0/90/45): 1.16 / 0.87 / 1.02
Luminous Opening: Rectangular (W 0.31' x L: 4' x H: 0')
CIE Type: Direct

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: P1060960

CATALOG NUMBER: S124RDR-H795D835-X4F0-XX-UDD-SVL-B

Luminous Intensity Polar Plot





TEST NUMBER: P1060960

CATALOG NUMBER: S124RDR-H795D835-X4F0-XX-UDD-SVL-B

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	112	108	105	102	109	106	103	101	102	100	97	98	96	94	95	93	92	90			90	
2	104	98	93	88	102	96	91	87	93	89	85	90	86	83	87	84	82	80			80	
3	97	89	82	77	95	87	81	76	84	79	75	82	78	74	79	76	73	71			71	
4	90	81	74	68	88	79	73	68	77	71	67	75	70	66	73	69	65	63			63	
5	84	74	66	61	82	73	66	60	71	65	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	48	47			47	
8	69	58	50	45	68	57	50	45	56	49	45	55	49	45	54	48	44	43			43	
9	65	53	46	41	64	53	46	41	52	46	41	51	45	41	50	45	41	39			39	
10	62	50	43	38	60	49	43	38	48	42	38	48	42	38	47	42	38	36			36	

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	5566	5566	5566
5°	5548	5477	5469
10°	5524	5286	5158
15°	5446	4999	4748
20°	5306	4672	4305
25°	5164	4264	3789
30°	4952	3820	3268
35°	4738	3379	2698
40°	4493	2875	2047
45°	4201	2350	1375
50°	3842	1780	853
55°	3376	1176	725
60°	2792	722	596
65°	2021	556	483
70°	1100	413	368
75°	243	303	333
80°	179	228	273
85°	178	178	267

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 4201 cd/sqm



TEST NUMBER: P1060960

CATALOG NUMBER: S124RDR-H795D835-X4F0-XX-UDD-SVL-B

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	59.9	6.3
10°-20°	159.1	16.7
20°-30°	210.7	22.1
30°-40°	209.1	21.9
40°-50°	160.9	16.9
50°-60°	95.9	10.1
60°-70°	43.6	4.6
70°-80°	11.3	1.2
80°-90°	2.5	0.3
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°	429.7	45.1
0°-40°	638.8	67.0
0°-60°	895.6	94.0
0°-90°	953.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	953.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	646	646	646	646	646	
5°	642	643	634	634	633	61
15°	611	595	561	542	533	172
25°	544	504	449	412	399	249
35°	451	394	321	272	257	281
45°	345	278	193	135	113	266
55°	225	160	78	49	48	200
65°	99	59	27	24	24	100
75°	7	9	9	10	10	15
85°	2	2	2	3	3	2
90°	0	0	0	0	0	



TEST NUMBER: P1060960

CATALOG NUMBER: S124RDR-H795D835-X4F0-XX-UDD-SVL-B

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	646.4	646.4	646.4	646.4	646.4
2.5°	645.5	646.4	640.9	645.5	647.3
5°	641.8	642.7	633.6	633.6	632.7
7.5°	637.3	635.5	620.9	615.4	613.6
10°	631.8	625.5	604.5	593.6	589.9
12.5°	622.7	612.7	584.5	569.0	562.6
15°	610.9	595.4	560.8	541.7	532.6
17.5°	596.3	577.2	536.2	511.7	501.6
20°	579.0	553.5	509.8	478.9	469.8
22.5°	562.6	530.8	480.7	445.2	435.2
25°	543.5	504.4	448.8	411.5	398.8
27.5°	520.8	478.9	417.0	378.7	366.0
30°	498.0	451.6	384.2	344.1	328.7
32.5°	474.3	423.3	354.1	308.6	294.1
35°	450.7	394.2	321.4	272.2	256.7
37.5°	425.2	365.1	288.6	237.6	220.3
40°	399.7	336.9	255.8	203.9	182.1
42.5°	373.3	307.7	224.0	169.3	147.5
45°	345.0	277.7	193.0	134.7	112.9
47.5°	316.8	249.5	162.1	101.1	81.0
50°	286.8	219.4	132.9	73.7	63.7
52.5°	256.7	190.3	103.8	57.4	54.6
55°	224.9	160.2	78.3	49.2	48.3
57.5°	192.1	132.9	56.4	42.8	41.0
60°	162.1	107.4	41.9	36.4	34.6
62.5°	131.1	81.0	34.6	30.0	28.2
65°	99.2	59.2	27.3	23.7	23.7
67.5°	71.9	40.1	21.8	19.1	18.2
70°	43.7	24.6	16.4	15.5	14.6
72.5°	21.8	14.6	12.7	11.8	11.8
75°	7.3	9.1	9.1	10.0	10.0
77.5°	5.5	6.4	6.4	7.3	7.3
80°	3.6	4.6	4.6	5.5	5.5
82.5°	2.7	2.7	3.6	3.6	4.6
85°	1.8	1.8	1.8	2.7	2.7
87.5°	0.9	0.9	0.9	1.8	1.8
90°	0.0	0.0	0.0	0.0	0.0



TEST NUMBER: P1060960
 CATALOG NUMBER: S124RDR-H795D835-X4F0-XX-UDD-SVL-B

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	15.08	16.42	15.45	16.73	17.04	6.63	7.97	7.00	8.28	8.60
	3H	15.59	16.77	15.97	17.10	17.47	7.45	8.63	7.83	8.96	9.33
	4H	15.56	16.66	15.96	17.01	17.39	7.73	8.83	8.14	9.18	9.56
	6H	15.49	16.50	15.91	16.87	17.27	7.91	8.91	8.32	9.28	9.68
	8H	15.46	16.41	15.89	16.80	17.21	7.97	8.93	8.40	9.32	9.72
	12H	15.42	16.33	15.85	16.71	17.14	8.02	8.93	8.45	9.31	9.74
4H	2H	14.92	16.02	15.33	16.37	16.76	7.08	8.17	7.48	8.52	8.91
	3H	15.48	16.37	15.89	16.78	17.18	8.04	8.93	8.45	9.34	9.74
	4H	15.45	16.24	15.88	16.66	17.11	8.40	9.20	8.84	9.62	10.06
	6H	15.40	16.08	15.86	16.53	16.99	8.66	9.34	9.12	9.79	10.25
	8H	15.35	15.99	15.82	16.44	16.91	8.75	9.38	9.21	9.83	10.30
	12H	15.31	15.87	15.80	16.36	16.83	8.82	9.38	9.31	9.87	10.34
8H	4H	15.34	15.98	15.81	16.42	16.90	8.49	9.13	8.96	9.58	10.05
	6H	15.28	15.80	15.78	16.29	16.78	8.81	9.33	9.31	9.82	10.30
	8H	15.23	15.70	15.75	16.21	16.70	8.94	9.40	9.46	9.92	10.41
	12H	15.20	15.61	15.71	16.11	16.68	9.07	9.48	9.58	9.98	10.55
12H	4H	15.30	15.86	15.78	16.34	16.82	8.46	9.03	8.95	9.51	9.99
	6H	15.22	15.69	15.74	16.20	16.70	8.78	9.25	9.31	9.77	10.26
	8H	15.19	15.61	15.71	16.10	16.67	8.95	9.37	9.47	9.86	10.43