

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: P1060964

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

Issue Date: 8/7/2025

Test Information

Test Method: LM-79-2019
Report Number: P1060964
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2406-143-76)
Test Lab: INNOVATION CENTER
Issue Date: 8/7/2025
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: NEO-RAY
Catalog Number: S124RDR-H795D835-X4F0-XX-UDD-WVL-S
Description: DEFINE 4 SILVER REGRESSED DIRECT RECESSED HOUSING WITH WHITE STRAIGHT BLADE LOUVER WITH DIFFUSER
HIGH PERFORMANCE LIGHT ENGINE
Light Source: 3500K CCT, 80 CRI LEDS
Ballast/Driver: -

Summary

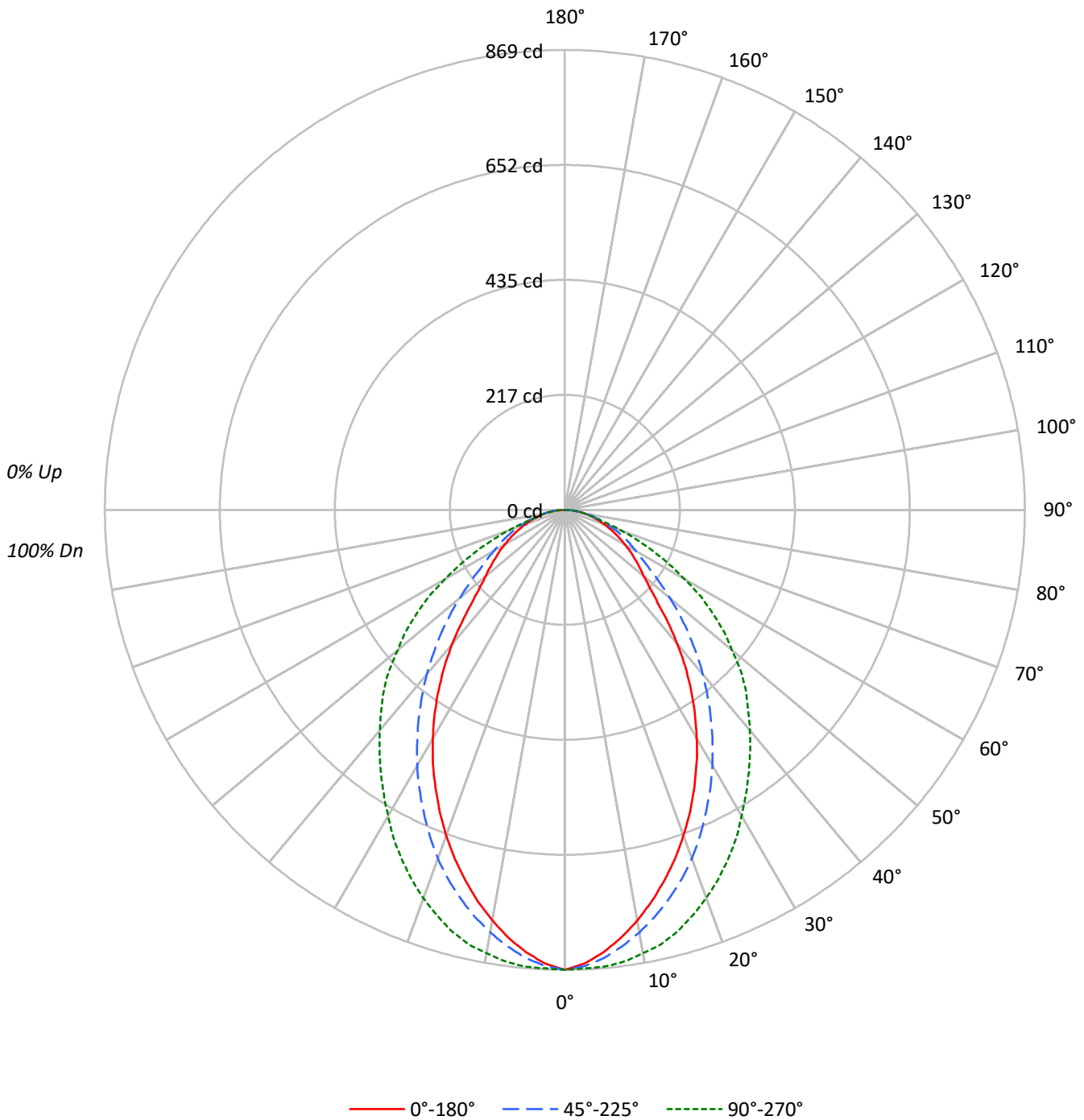
Lumens per Lamp: N/A
Luminaire Lumens: 1582.1 lumens
Efficiency: N/A
Efficacy: 67.3 lumens/watt
Spacing Criteria (0/90/45): 0.93 / 1.15 / 1.1
Luminous Opening: Rectangular (W 0.31' x L: 4' x H: 0')
CIE Type: Direct

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

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

Luminous Intensity Polar Plot





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COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:

RF	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	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	100	100	100	100	100														
1	110	106	102	99	108	104	100	97	100	97	94	96	93	91	92	90	89	87	87	87	87	87	87	87														
2	102	94	88	83	99	92	87	82	89	84	80	86	82	79	83	80	77	75	75	75	75	75	75	75														
3	94	84	77	71	91	83	76	71	80	74	69	77	72	68	75	71	67	65	65	65	65	65	65	65														
4	87	76	68	62	84	74	67	61	72	66	61	70	64	60	68	63	59	57	57	57	57	57	57	57														
5	80	69	60	54	78	68	60	54	65	59	54	64	58	53	62	57	52	50	50	50	50	50	50	50														
6	75	62	54	48	73	62	54	48	60	53	48	58	52	47	57	51	47	45	45	45	45	45	45	45														
7	70	57	49	43	68	56	49	43	55	48	43	54	47	43	52	47	42	41	41	41	41	41	41	41														
8	65	53	45	39	64	52	44	39	51	44	39	50	43	39	48	43	39	37	37	37	37	37	37	37														
9	61	49	41	36	60	48	41	36	47	40	36	46	40	35	45	39	35	34	34	34	34	34	34	34														
10	58	45	38	33	56	45	38	33	44	37	33	43	37	33	42	36	32	31	31	31	31	31	31	31														

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	7483	7483	7483
5°	7252	7347	7488
10°	6890	7089	7439
15°	6464	6781	7349
20°	6002	6427	7154
25°	5496	5990	6924
30°	4955	5543	6639
35°	4367	5056	6368
40°	3717	4557	6113
45°	3018	4027	5890
50°	2611	3466	5515
55°	2420	2940	5115
60°	2260	2651	4486
65°	2115	2488	3731
70°	1971	2294	2820
75°	1880	2123	2030
80°	1760	1944	1716
85°	1620	1798	1354

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°
 Vertical Angle: 45°
 Luminance: 5890 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	80.2	5.1
10°-20°	215.7	13.6
20°-30°	294.5	18.6
30°-40°	308.5	19.5
40°-50°	267.0	16.9
50°-60°	200.7	12.7
60°-70°	129.4	8.2
70°-80°	66.4	4.2
80°-90°	19.8	1.3
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°	590.4	37.3
0°-40°	898.9	56.8
0°-60°	1366.6	86.4
0°-90°	1582.1	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1582.1	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	869	869	869	869	869	
5°	839	852	850	856	866	78
15°	725	743	761	795	824	203
25°	578	600	630	680	729	265
35°	415	439	481	545	606	259
45°	248	273	331	412	484	195
55°	161	167	196	280	341	145
65°	104	106	122	148	183	103
75°	56	63	64	63	61	60
85°	16	19	18	17	14	19
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	869.0	869.0	869.0	869.0	869.0
2.5°	858.1	869.0	862.6	864.5	867.2
5°	839.0	851.7	849.9	856.3	866.3
7.5°	815.3	828.9	831.7	846.3	860.8
10°	788.0	803.4	810.7	832.6	850.8
12.5°	757.9	774.3	787.0	814.4	840.8
15°	725.1	743.3	760.6	795.2	824.4
17.5°	691.4	709.6	732.4	770.6	803.4
20°	655.0	675.0	701.4	741.5	780.7
22.5°	617.6	638.6	666.8	710.5	756.1
25°	578.4	600.3	630.4	679.6	728.7
27.5°	539.3	561.1	594.8	646.8	700.5
30°	498.3	521.0	557.5	614.0	667.7
32.5°	457.3	481.9	519.2	579.3	636.7
35°	415.4	439.1	481.0	544.7	605.8
37.5°	373.5	398.1	442.7	511.0	574.8
40°	330.7	356.2	405.4	477.3	543.8
42.5°	287.9	315.2	367.1	442.7	512.9
45°	247.8	273.3	330.7	411.7	483.7
47.5°	217.7	235.0	294.2	381.7	450.9
50°	194.9	204.0	258.7	348.9	411.7
52.5°	177.6	184.0	225.9	313.4	379.9
55°	161.2	166.7	195.8	279.7	340.7
57.5°	146.7	149.4	173.1	246.9	303.3
60°	131.2	133.9	153.9	211.3	260.5
62.5°	117.5	119.3	138.5	177.6	221.4
65°	103.8	105.7	122.1	147.6	183.1
67.5°	91.1	93.8	106.6	120.2	145.7
70°	78.3	83.8	91.1	97.5	112.0
72.5°	67.4	72.9	76.5	78.3	79.3
75°	56.5	62.9	63.8	62.9	61.0
77.5°	45.5	51.0	51.0	49.2	47.4
80°	35.5	40.1	39.2	37.3	34.6
82.5°	26.4	29.1	28.2	26.4	23.7
85°	16.4	19.1	18.2	17.3	13.7
87.5°	8.2	10.9	10.0	9.1	5.5
90°	0.0	0.0	0.0	0.0	0.0



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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	13.43	14.91	13.79	15.22	15.54	17.20	18.68	17.56	19.00	19.31
	3H	15.08	16.41	15.46	16.74	17.10	18.31	19.64	18.69	19.97	20.33
	4H	15.75	17.00	16.15	17.35	17.73	18.60	19.85	19.00	20.20	20.58
	6H	16.26	17.41	16.68	17.78	18.17	18.80	19.95	19.21	20.32	20.71
	8H	16.44	17.54	16.87	17.93	18.33	18.85	19.95	19.28	20.34	20.74
	12H	16.57	17.62	17.00	18.00	18.43	18.88	19.93	19.31	20.31	20.74
4H	2H	14.21	15.45	14.61	15.80	16.18	17.36	18.60	17.76	18.95	19.33
	3H	16.07	17.10	16.48	17.50	17.90	18.67	19.70	19.08	20.10	20.50
	4H	16.88	17.81	17.31	18.22	18.66	19.08	20.01	19.51	20.42	20.86
	6H	17.53	18.33	17.98	18.78	19.24	19.39	20.20	19.85	20.64	21.10
	8H	17.75	18.51	18.22	18.95	19.42	19.49	20.24	19.95	20.68	21.15
	12H	17.92	18.60	18.41	19.08	19.55	19.55	20.22	20.03	20.70	21.17
8H	4H	17.23	17.98	17.69	18.43	18.90	19.21	19.97	19.68	20.41	20.88
	6H	18.02	18.64	18.52	19.14	19.61	19.62	20.25	20.12	20.74	21.22
	8H	18.34	18.90	18.86	19.41	19.90	19.77	20.33	20.29	20.84	21.33
	12H	18.61	19.10	19.12	19.59	20.16	19.90	20.39	20.41	20.88	21.45
12H	4H	17.26	17.93	17.74	18.41	18.88	19.22	19.89	19.70	20.37	20.84
	6H	18.08	18.64	18.60	19.15	19.64	19.64	20.20	20.16	20.71	21.20
	8H	18.47	18.96	18.98	19.46	20.02	19.85	20.34	20.36	20.83	21.40