

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: P1060949

Luminaire Tested: S124RDR-H795D830-X4F0-XX-UDD-BVL-S

Issue Date: 8/7/2025

**Test Information**

Test Method: LM-79-2019  
Report Number: P1060949  
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-H795D830-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: 3000K CCT, 80 CRI LEDS  
Ballast/Driver: -

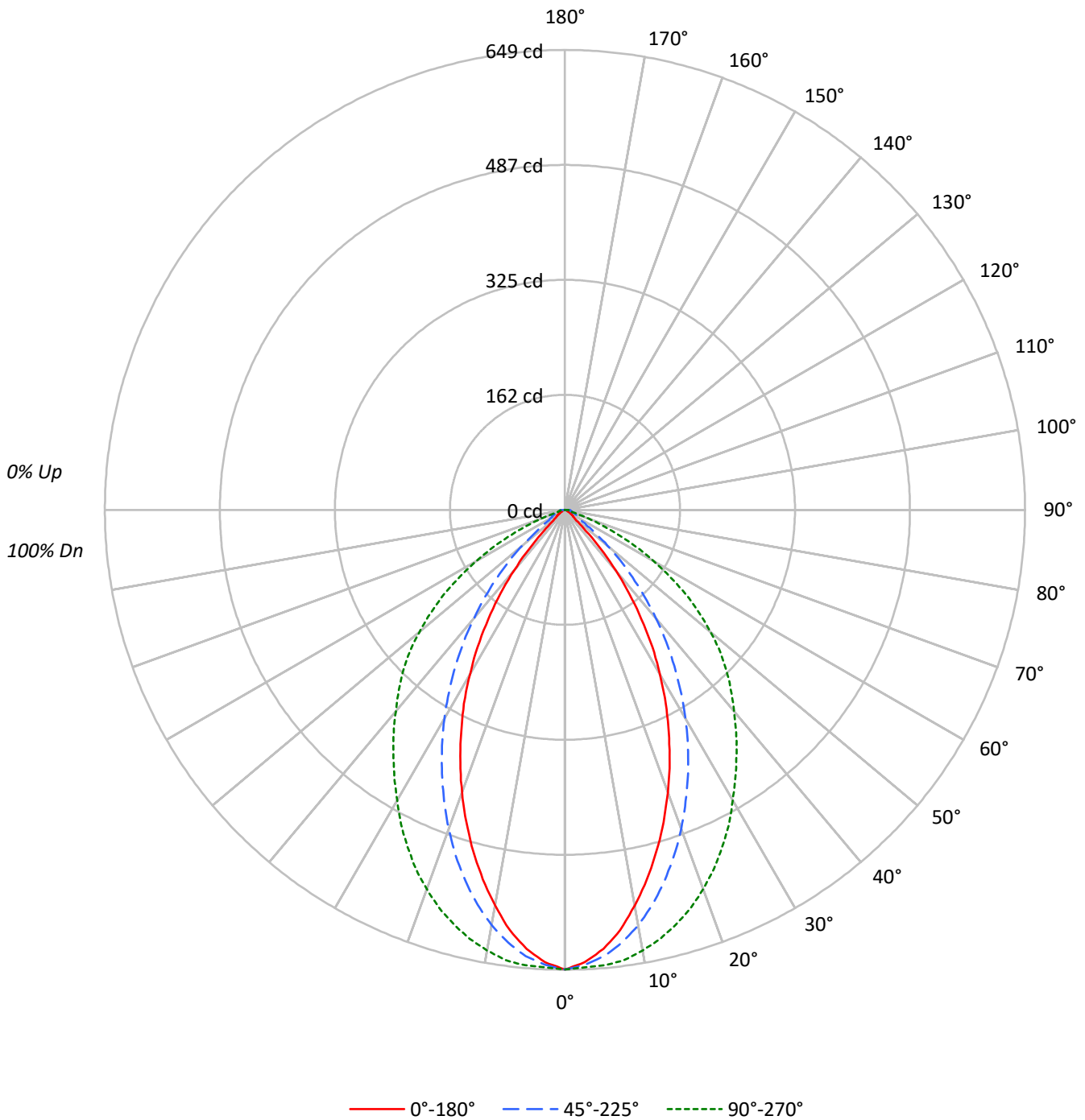
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 814.0 lumens  
Efficiency: N/A  
Efficacy: 34.6 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: P1060949

CATALOG NUMBER: S124RDR-H795D830-X4F0-XX-UDD-BVL-S

### Luminous Intensity Polar Plot





TEST NUMBER: P1060949

CATALOG NUMBER: S124RDR-H795D830-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°	5585	5585	5585
5°	5377	5466	5576
10°	4958	5205	5521
15°	4449	4833	5399
20°	3889	4392	5219
25°	3289	3901	4987
30°	2657	3383	4706
35°	1977	2827	4434
40°	1256	2240	4172
45°	502	1643	3933
50°	218	1048	3590
55°	168	542	3133
60°	119	370	2485
65°	88	367	1697
70°	86	325	778
75°	113	343	313
80°	169	382	342
85°	336	682	514

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 90°  
 Vertical Angle: 45°  
 Luminance: 3933 cd/sqm



TEST NUMBER: P1060949

CATALOG NUMBER: S124RDR-H795D830-X4F0-XX-UDD-BVL-S

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	59.4	7.3
10°-20°	153.1	18.8
20°-30°	193.4	23.8
30°-40°	177.7	21.8
40°-50°	121.1	14.9
50°-60°	65.7	8.1
60°-70°	27.9	3.4
70°-80°	9.6	1.2
80°-90°	6.1	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°	405.9	49.9
0°-40°	583.6	71.7
0°-60°	770.4	94.6
0°-90°	814.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	814.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	649	649	649	649	649	
5°	622	631	632	637	645	58
15°	499	515	542	581	606	139
25°	346	368	411	474	525	158
35°	188	213	269	353	422	117
45°	41	66	135	239	323	38
55°	11	12	36	131	209	10
65°	4	5	18	41	83	4
75°	3	9	10	9	9	4
85°	3	7	7	7	5	3
90°	0	0	0	0	0	



TEST NUMBER: P1060949

CATALOG NUMBER: S124RDR-H795D830-X4F0-XX-UDD-BVL-S

**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	648.6	648.6	648.6	648.6	648.6
2.5°	639.1	646.9	642.6	644.3	646.0
5°	622.0	631.4	632.3	637.4	645.1
7.5°	597.9	609.1	615.9	628.8	640.9
10°	567.0	580.7	595.3	615.9	631.4
12.5°	534.3	548.9	570.4	599.6	620.2
15°	499.1	515.4	542.1	580.7	605.6
17.5°	462.2	480.2	512.0	557.5	589.3
20°	424.4	444.1	479.3	530.9	569.5
22.5°	385.7	406.3	445.0	503.4	548.9
25°	346.2	368.5	410.6	474.2	524.9
27.5°	308.4	329.0	375.4	445.0	500.8
30°	267.2	290.4	340.2	414.9	473.3
32.5°	229.4	251.7	304.1	384.0	447.6
35°	188.1	213.0	268.9	353.1	421.8
37.5°	149.5	173.5	234.5	323.9	396.9
40°	111.7	136.6	199.3	294.7	371.1
42.5°	74.7	101.4	165.8	264.6	347.1
45°	41.2	66.1	134.9	238.8	323.0
47.5°	21.5	36.1	105.7	213.0	297.2
50°	16.3	19.8	78.2	184.7	268.0
52.5°	13.7	14.6	53.3	156.3	238.8
55°	11.2	12.0	36.1	131.4	208.7
57.5°	8.6	9.4	25.8	107.4	175.2
60°	6.9	7.7	21.5	82.5	144.3
62.5°	5.2	6.0	20.6	61.0	113.4
65°	4.3	5.2	18.0	41.2	83.3
67.5°	3.4	5.2	15.5	26.6	55.8
70°	3.4	6.9	12.9	17.2	30.9
72.5°	3.4	7.7	11.2	11.2	11.2
75°	3.4	9.4	10.3	9.4	9.4
77.5°	3.4	8.6	8.6	8.6	8.6
80°	3.4	7.7	7.7	7.7	6.9
82.5°	3.4	6.9	7.7	7.7	6.0
85°	3.4	6.9	6.9	6.9	5.2
87.5°	2.6	6.9	6.9	6.9	3.4
90°	0.0	0.0	0.0	0.0	0.0



TEST NUMBER: P1060949  
 CATALOG NUMBER: S124RDR-H795D830-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	14.42	15.69	14.78	16.01	16.32
	3H	0.00	0.00	0.00	0.00	0.00	14.77	15.90	15.15	16.23	16.60
	4H	0.00	0.34	0.00	0.69	1.07	14.74	15.79	15.14	16.14	16.52
	6H	0.65	1.61	1.07	1.98	2.38	14.71	15.68	15.13	16.05	16.44
	8H	1.33	2.24	1.76	2.63	3.04	14.70	15.62	15.14	16.01	16.41
	12H	2.13	3.00	2.56	3.38	3.81	14.70	15.57	15.14	15.96	16.39
4H	2H	0.10	1.15	0.50	1.50	1.88	14.22	15.27	14.63	15.62	16.01
	3H	1.53	2.38	1.94	2.79	3.19	14.62	15.47	15.03	15.88	16.28
	4H	2.97	3.73	3.40	4.15	4.60	14.60	15.36	15.03	15.78	16.22
	6H	4.21	4.87	4.68	5.32	5.78	14.61	15.27	15.08	15.72	16.19
	8H	4.78	5.40	5.25	5.84	6.31	14.62	15.24	15.09	15.69	16.16
	12H	5.45	6.00	5.94	6.48	6.95	14.66	15.20	15.15	15.69	16.16
8H	4H	4.05	4.66	4.52	5.11	5.58	14.50	15.11	14.97	15.56	16.03
	6H	5.66	6.16	6.16	6.66	7.14	14.55	15.05	15.05	15.55	16.03
	8H	6.49	6.95	7.02	7.46	7.95	14.60	15.05	15.13	15.57	16.06
	12H	7.46	7.86	7.98	8.36	8.93	14.72	15.12	15.24	15.61	16.19
12H	4H	4.24	4.78	4.72	5.26	5.74	14.46	15.00	14.94	15.48	15.96
	6H	6.00	6.45	6.53	6.97	7.46	14.51	14.97	15.04	15.48	15.97
	8H	7.03	7.43	7.54	7.92	8.50	14.62	15.02	15.13	15.51	16.08