

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



Scaled data based on original data using  
LM-79-2024 Approved Method: Electrical and Photometric Measurements of Solid-  
State Lighting Products

Test Report Prepared for  
Cooper Lighting Solutions

Brand: NEO-RAY

Report Number: P1059260

Luminaire Tested: S123RDRP-S560D835-X4F0-XX-UDD-SVL-S

Issue Date: 8/7/2025

**Test Information**

Test Method: LM-79-2024  
Report Number: P1059260  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2406-143-68)  
Test Lab: INNOVATION CENTER  
Issue Date: 8/7/2025  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: NEO-RAY  
Catalog Number: S123RDRP-S560D835-X4F0-XX-UDD-SVL-S  
Description: DEFINE 3 SILVER REGRESSED DIRECT RECESSED HOUSING WITH SILVER STRAIGHT BLADE LOUVER WITH DIFFUSER  
CORE LIGHT ENGINE  
Light Source: 3500K CCT, 80 CRI LEDS  
Ballast/Driver: -

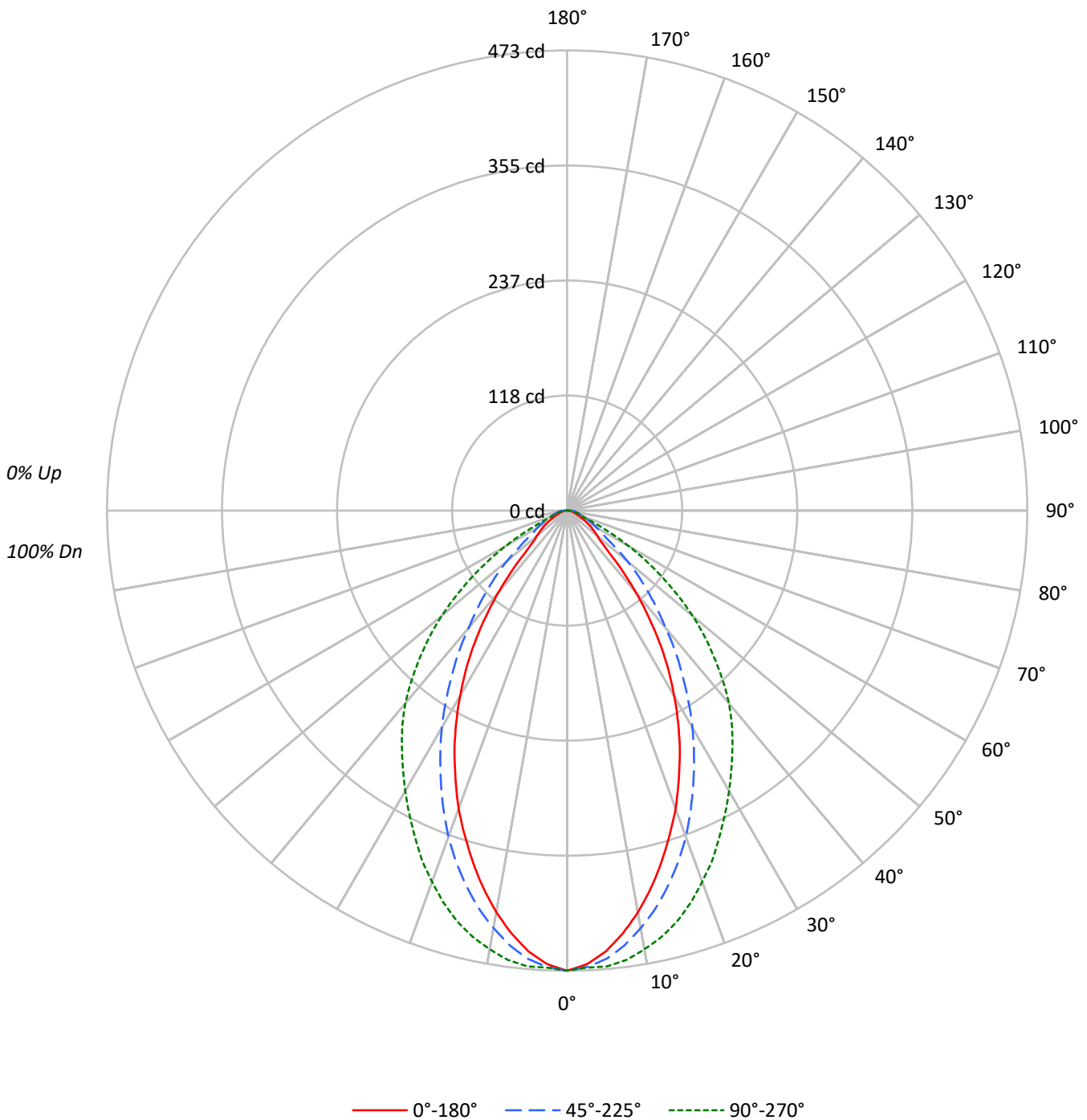
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 633.4 lumens  
Efficiency: N/A  
Efficacy: 32.3 lumens/watt  
Spacing Criteria (0/90/45): 0.83 / 1.07 / 0.98  
Luminous Opening: Rectangular (W 0.23' x L: 4' x H: 0')  
CIE Type: Direct  
  
Input Watts (W): 19.6  
Input Voltage (V): 120  
Input Current (A<sub>in</sub>): 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: P1059260

CATALOG NUMBER: S123RDRP-S560D835-X4F0-XX-UDD-SVL-S

### Luminous Intensity Polar Plot





TEST NUMBER: P1059260

CATALOG NUMBER: S123RDRP-S560D835-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	0
RCR																		
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100
1	111	108	105	102	109	106	103	100	101	99	97	98	96	94	94	93	91	89
2	104	98	92	88	102	96	91	87	92	88	85	89	86	83	86	84	81	79
3	97	89	82	77	95	87	81	77	84	79	75	82	78	74	79	76	73	71
4	91	81	74	69	88	80	73	68	77	72	67	75	70	66	73	69	66	64
5	85	74	67	61	83	73	66	61	71	65	61	69	64	60	68	63	59	58
6	79	68	61	56	78	67	60	55	66	60	55	64	59	54	63	58	54	52
7	74	63	56	51	73	62	55	50	61	55	50	60	54	50	58	53	49	48
8	70	58	51	46	69	58	51	46	57	50	46	56	50	46	54	49	45	44
9	66	54	47	43	65	54	47	43	53	47	42	52	46	42	51	46	42	40
10	62	51	44	39	61	50	44	39	50	43	39	49	43	39	48	43	39	37

**AVERAGE LUMINANCE (cd/sqm):**

	0°	45°	90°
0°	5553	5553	5553
5°	5363	5453	5542
10°	4997	5195	5459
15°	4549	4860	5312
20°	4072	4461	5073
25°	3551	3980	4795
30°	2986	3491	4512
35°	2375	2959	4246
40°	1694	2413	3969
45°	1010	1938	3554
50°	744	1476	3078
55°	622	1003	2444
60°	503	827	1719
65°	403	709	920
70°	333	618	570
75°	313	594	531
80°	325	656	514
85°	472	930	647

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 90°  
 Vertical Angle: 45°  
 Luminance: 3554 cd/sqm



TEST NUMBER: P1059260

CATALOG NUMBER: S123RDRP-S560D835-X4F0-XX-UDD-SVL-S

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	43.4	6.9
10°-20°	112.9	17.8
20°-30°	144.0	22.7
30°-40°	135.4	21.4
40°-50°	97.3	15.4
50°-60°	55.8	8.8
60°-70°	25.5	4.0
70°-80°	12.8	2.0
80°-90°	6.3	1.0
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°	300.3	47.4
0°-40°	435.7	68.8
0°-60°	588.8	93.0
0°-90°	633.4	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	633.4	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	473	473	473	473	473	
5°	455	464	463	466	470	42
15°	374	387	400	421	437	105
25°	274	286	307	340	370	125
35°	166	177	206	253	296	103
45°	61	74	117	172	214	51
55°	30	31	49	90	119	27
65°	14	20	26	28	33	15
75°	7	14	13	12	12	8
85°	4	7	7	6	5	3
90°	0	0	0	0	0	



TEST NUMBER: P1059260

CATALOG NUMBER: S123RDRP-S560D835-X4F0-XX-UDD-SVL-S

**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	472.9	472.9	472.9	472.9	472.9
2.5°	466.7	473.6	469.5	469.5	470.2
5°	455.0	464.0	462.6	466.0	470.2
7.5°	438.4	448.1	450.9	459.1	466.0
10°	419.1	430.1	435.7	448.8	457.8
12.5°	397.7	410.1	419.1	435.7	448.8
15°	374.2	387.3	399.8	421.2	437.0
17.5°	350.1	363.2	379.0	403.9	422.5
20°	325.9	339.0	357.0	383.2	406.0
22.5°	299.6	312.8	332.1	361.8	389.4
25°	274.1	286.5	307.2	340.4	370.1
27.5°	247.2	259.6	282.4	318.3	351.4
30°	220.2	232.7	257.5	296.2	332.8
32.5°	193.3	205.1	232.0	274.8	314.1
35°	165.7	177.4	206.4	253.4	296.2
37.5°	137.4	149.1	183.0	234.1	278.2
40°	110.5	123.6	157.4	214.7	258.9
42.5°	84.2	98.0	136.7	194.0	236.8
45°	60.8	73.9	116.7	171.9	214.0
47.5°	46.3	53.2	98.7	149.8	191.9
50°	40.7	41.4	80.8	129.8	168.5
52.5°	35.2	35.9	62.8	110.5	143.6
55°	30.4	31.1	49.0	90.4	119.4
57.5°	25.5	26.9	40.0	71.8	96.0
60°	21.4	24.2	35.2	54.5	73.2
62.5°	17.3	22.1	30.4	40.0	52.5
65°	14.5	20.0	25.5	28.3	33.1
67.5°	11.7	18.6	21.4	20.0	20.0
70°	9.7	16.6	18.0	16.6	16.6
72.5°	8.3	15.9	15.2	13.8	13.8
75°	6.9	13.8	13.1	11.7	11.7
77.5°	6.2	11.7	11.0	10.4	9.7
80°	4.8	9.7	9.7	9.0	7.6
82.5°	4.1	8.3	8.3	7.6	6.2
85°	3.5	6.9	6.9	6.2	4.8
87.5°	2.8	6.2	6.2	5.5	3.5
90°	0.0	0.0	0.0	0.0	0.0



TEST NUMBER: P1059260  
 CATALOG NUMBER: S123RDRP-S560D835-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	5.93	7.25	6.30	7.57	7.88	13.16	14.48	13.53	14.79	15.11
	3H	7.34	8.50	7.72	8.83	9.20	13.40	14.57	13.78	14.90	15.26
	4H	7.90	8.99	8.30	9.34	9.72	13.51	14.60	13.91	14.95	15.33
	6H	8.36	9.36	8.77	9.73	10.12	13.61	14.62	14.03	14.99	15.38
	8H	8.54	9.49	8.97	9.88	10.28	13.66	14.61	14.09	15.00	15.41
	12H	8.73	9.64	9.17	10.02	10.45	13.71	14.62	14.15	15.00	15.43
4H	2H	7.01	8.10	7.41	8.45	8.83	13.12	14.21	13.53	14.56	14.95
	3H	8.70	9.59	9.11	10.00	10.40	13.49	14.39	13.91	14.79	15.19
	4H	9.53	10.33	9.97	10.75	11.20	13.68	14.47	14.11	14.89	15.34
	6H	10.19	10.88	10.65	11.33	11.80	13.90	14.59	14.36	15.04	15.50
	8H	10.45	11.09	10.91	11.54	12.01	14.00	14.65	14.47	15.09	15.56
	12H	10.70	11.27	11.19	11.76	12.23	14.12	14.69	14.60	15.17	15.64
8H	4H	9.97	10.61	10.44	11.06	11.53	13.72	14.37	14.19	14.81	15.28
	6H	10.92	11.45	11.42	11.95	12.43	14.06	14.59	14.56	15.08	15.56
	8H	11.39	11.86	11.91	12.38	12.87	14.25	14.72	14.77	15.24	15.73
	12H	11.87	12.29	12.38	12.78	13.36	14.48	14.90	14.99	15.39	15.96
12H	4H	10.03	10.60	10.52	11.08	11.56	13.71	14.29	14.20	14.77	15.24
	6H	11.07	11.55	11.59	12.06	12.56	14.08	14.56	14.60	15.07	15.57
	8H	11.66	12.09	12.18	12.58	13.15	14.34	14.77	14.86	15.26	15.83