

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: P1059262

Luminaire Tested: S123RDRP-S560D835-X4F0-XX-UDD-WVL-B

Issue Date: 8/7/2025

**Test Information**

Test Method: LM-79-2024  
Report Number: P1059262  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2406-143-28)  
Test Lab: INNOVATION CENTER  
Issue Date: 8/7/2025  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: NEO-RAY  
Catalog Number: S123RDRP-S560D835-X4F0-XX-UDD-WVL-B  
Description: DEFINE 3 BLACK REGRESSED DIRECT RECESSED HOUSING WITH WHITE STRAIGHT BLADE  
LOUVER WITH DIFFUSER  
CORE LIGHT ENGINE  
Light Source: 3500K CCT, 80 CRI LEDS  
Ballast/Driver: -

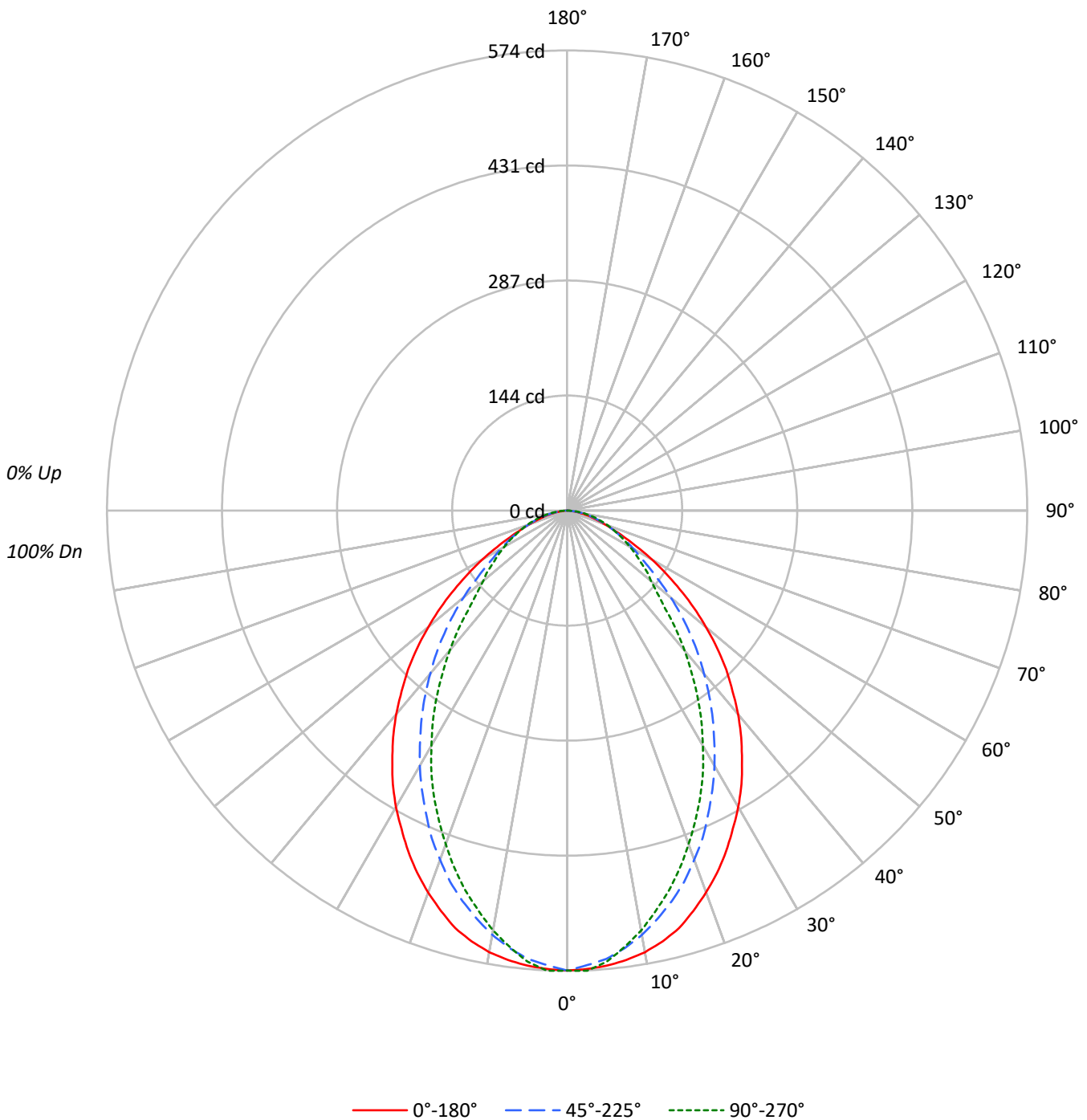
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 1003.6 lumens  
Efficiency: N/A  
Efficacy: 51.2 lumens/watt  
Spacing Criteria (0/90/45): 1.12 / 0.95 / 1.09  
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: P1059262

CATALOG NUMBER: S123RDRP-S560D835-X4F0-XX-UDD-WVL-B

### Luminous Intensity Polar Plot





TEST NUMBER: P1059262

CATALOG NUMBER: S123RDRP-S560D835-X4F0-XX-UDD-WVL-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	0
RCR																		
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100
1	111	107	103	100	108	104	101	98	100	98	95	96	94	92	93	91	89	88
2	102	95	89	84	100	93	88	83	90	85	81	87	83	80	84	81	78	76
3	94	85	78	73	92	84	77	72	81	75	71	78	73	69	76	72	68	66
4	87	77	69	63	85	76	68	63	73	67	62	71	66	61	69	64	60	58
5	81	70	62	56	79	69	61	56	67	60	55	65	59	54	63	58	54	52
6	76	64	56	50	74	63	55	50	61	54	49	59	53	49	58	53	48	47
7	71	58	50	45	69	58	50	45	56	49	44	55	49	44	53	48	44	42
8	66	54	46	41	65	53	46	41	52	45	40	51	45	40	50	44	40	38
9	62	50	42	37	61	49	42	37	48	41	37	47	41	37	46	41	37	35
10	58	46	39	34	57	46	39	34	45	38	34	44	38	34	43	38	34	32

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

	0°	45°	90°
0°	6738	6738	6738
5°	6715	6617	6659
10°	6669	6407	6341
15°	6556	6129	5962
20°	6334	5792	5533
25°	6077	5398	5093
30°	5788	4984	4591
35°	5447	4538	4064
40°	5085	4070	3500
45°	4661	3597	2875
50°	4132	3087	2495
55°	3515	2584	2287
60°	2868	2252	2121
65°	2184	1992	1973
70°	1706	1775	1847
75°	1375	1597	1719
80°	1028	1305	1582
85°	552	835	1388

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 0°  
 Vertical Angle: 45°  
 Luminance: 4661 cd/sqm



TEST NUMBER: P1059262

CATALOG NUMBER: S123RDRP-S560D835-X4F0-XX-UDD-WVL-B

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	53.3	5.3
10°-20°	143.3	14.3
20°-30°	194.8	19.4
30°-40°	202.0	20.1
40°-50°	170.3	17.0
50°-60°	120.9	12.0
60°-70°	73.9	7.4
70°-80°	36.8	3.7
80°-90°	8.3	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°	391.4	39.0
0°-40°	593.4	59.1
0°-60°	884.6	88.1
0°-90°	1003.6	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1003.6	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	574	574	574	574	574	
5°	570	570	561	565	565	54
15°	539	529	504	495	490	151
25°	469	448	417	401	393	216
35°	380	351	317	294	284	238
45°	281	251	217	187	173	216
55°	172	154	126	115	112	154
65°	79	76	72	72	71	80
75°	30	32	35	37	38	33
85°	4	5	6	9	10	6
90°	0	0	0	0	0	



TEST NUMBER: P1059262

CATALOG NUMBER: S123RDRP-S560D835-X4F0-XX-UDD-WVL-B

**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	573.8	573.8	573.8	573.8	573.8
2.5°	572.4	573.1	567.6	573.8	574.5
5°	569.7	569.7	561.4	564.9	564.9
7.5°	565.5	564.2	550.4	550.4	549.0
10°	559.3	555.2	537.3	533.8	531.8
12.5°	550.4	543.5	521.4	515.2	511.1
15°	539.3	529.0	504.2	495.2	490.4
17.5°	523.5	513.1	485.5	473.1	467.6
20°	506.9	491.7	463.5	451.1	442.8
22.5°	489.0	469.7	442.1	426.9	418.0
25°	469.0	448.3	416.6	401.4	393.1
27.5°	447.6	424.8	392.4	375.2	366.9
30°	426.9	400.7	367.6	348.3	338.6
32.5°	404.8	375.2	341.4	321.4	311.7
35°	380.0	351.1	316.6	294.5	283.5
37.5°	356.6	326.9	291.0	267.6	255.2
40°	331.7	302.1	265.5	241.4	228.3
42.5°	305.5	277.3	241.4	213.1	200.7
45°	280.7	251.0	216.6	186.9	173.1
47.5°	253.8	226.2	192.4	162.1	152.4
50°	226.2	200.7	169.0	141.4	136.6
52.5°	199.3	177.9	145.5	127.6	125.5
55°	171.7	153.8	126.2	115.2	111.7
57.5°	146.2	133.1	108.3	102.8	101.4
60°	122.1	111.0	95.9	92.4	90.3
62.5°	98.6	92.4	83.5	82.1	80.7
65°	78.6	75.9	71.7	71.7	71.0
67.5°	62.1	62.1	61.4	62.8	62.1
70°	49.7	50.3	51.7	53.1	53.8
72.5°	39.3	41.4	42.8	44.8	45.5
75°	30.3	32.4	35.2	36.6	37.9
77.5°	22.1	24.1	26.9	29.0	30.3
80°	15.2	16.6	19.3	22.1	23.4
82.5°	9.7	10.3	12.4	15.2	16.6
85°	4.1	4.8	6.2	9.0	10.3
87.5°	0.0	0.0	0.7	2.8	4.8
90°	0.0	0.0	0.0	0.0	0.0



TEST NUMBER: P1059262  
 CATALOG NUMBER: S123RDRP-S560D835-X4F0-XX-UDD-WVL-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	15.44	16.89	15.80	17.20	17.52	13.54	14.99	13.90	15.30	15.61
	3H	16.33	17.63	16.71	17.96	18.32	15.11	16.40	15.49	16.73	17.10
	4H	16.62	17.83	17.02	18.18	18.56	15.70	16.92	16.10	17.27	17.65
	6H	16.77	17.88	17.18	18.25	18.64	16.15	17.27	16.57	17.64	18.03
	8H	16.79	17.85	17.22	18.24	18.64	16.30	17.37	16.73	17.76	18.16
	12H	16.78	17.80	17.21	18.18	18.61	16.40	17.42	16.83	17.80	18.23
4H	2H	15.68	16.89	16.08	17.24	17.62	14.08	15.29	14.48	15.64	16.02
	3H	16.79	17.80	17.21	18.20	18.60	15.85	16.85	16.26	17.25	17.65
	4H	17.18	18.08	17.62	18.50	18.94	16.56	17.46	17.00	17.88	18.32
	6H	17.43	18.20	17.88	18.65	19.11	17.13	17.91	17.59	18.36	18.82
	8H	17.47	18.20	17.93	18.64	19.11	17.33	18.05	17.79	18.50	18.97
	12H	17.48	18.12	17.96	18.60	19.08	17.46	18.11	17.95	18.59	19.06
8H	4H	17.34	18.07	17.81	18.51	18.98	16.77	17.50	17.24	17.94	18.41
	6H	17.65	18.25	18.15	18.75	19.23	17.45	18.05	17.95	18.54	19.02
	8H	17.73	18.27	18.25	18.78	19.27	17.71	18.24	18.22	18.75	19.24
	12H	17.77	18.24	18.28	18.73	19.30	17.91	18.39	18.43	18.88	19.45
12H	4H	17.35	17.99	17.83	18.47	18.95	16.77	17.42	17.25	17.90	18.37
	6H	17.67	18.21	18.19	18.72	19.21	17.46	17.99	17.97	18.51	18.99
	8H	17.78	18.26	18.30	18.75	19.32	17.76	18.23	18.27	18.73	19.29