

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: P1059338

Luminaire Tested: S123RDRP-S775D835-X4F0-XX-UDD-BVL-S

Issue Date: 8/7/2025

**Test Information**

Test Method: LM-79-2024  
Report Number: P1059338  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2406-143-69)  
Test Lab: INNOVATION CENTER  
Issue Date: 8/7/2025  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: NEO-RAY  
Catalog Number: S123RDRP-S775D835-X4F0-XX-UDD-BVL-S  
Description: DEFINE 3 SILVER REGRESSED DIRECT RECESSED HOUSING WITH BLACK STRAIGHT BLADE  
LOUVER WITH DIFFUSER  
CORE LIGHT ENGINE  
Light Source: 3500K CCT, 80 CRI LEDS  
Ballast/Driver: -

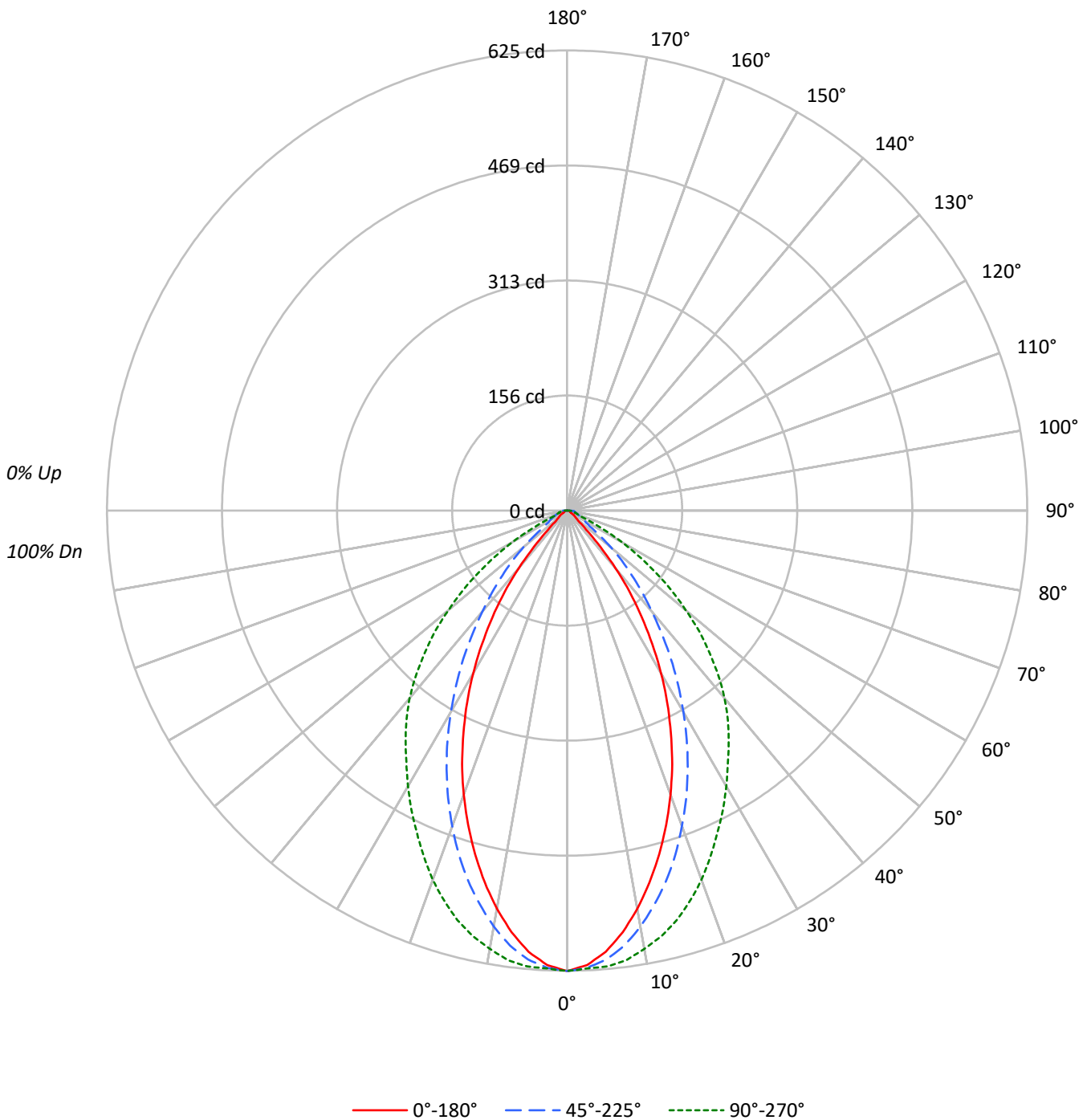
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 751.2 lumens  
Efficiency: N/A  
Efficacy: 29.1 lumens/watt  
Spacing Criteria (0/90/45): 0.79 / 1.06 / 0.94  
Luminous Opening: Rectangular (W 0.23' x L: 4' x H: 0')  
CIE Type: Direct  
  
Input Watts (W): 25.8  
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: P1059338

CATALOG NUMBER: S123RDRP-S775D835-X4F0-XX-UDD-BVL-S

### Luminous Intensity Polar Plot



TEST NUMBER: P1059338

CATALOG NUMBER: S123RDRP-S775D835-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	102	109	106	103	101	102	100	98	98	96	95	95	93	92	90
2	105	99	94	89	102	97	92	88	94	90	86	90	87	85	88	85	83	81
3	98	90	84	79	96	89	83	78	86	81	77	83	79	76	81	78	75	73
4	92	83	76	71	90	81	75	70	79	74	69	77	72	69	75	71	68	66
5	86	76	69	64	84	75	68	64	73	67	63	71	66	62	70	65	62	60
6	81	70	63	58	79	69	63	58	68	62	57	66	61	57	65	60	57	55
7	76	65	58	53	75	64	58	53	63	57	53	62	56	52	61	56	52	50
8	72	61	54	49	70	60	53	49	59	53	48	58	52	48	57	52	48	46
9	68	57	50	45	67	56	50	45	55	49	45	54	49	45	53	48	45	43
10	64	53	46	42	63	53	46	42	52	46	42	51	45	42	50	45	41	40

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

	0°	45°	90°
0°	7344	7344	7344
5°	7090	7214	7327
10°	6545	6842	7207
15°	5870	6324	6999
20°	5126	5699	6668
25°	4312	5018	6257
30°	3462	4279	5860
35°	2536	3524	5483
40°	1568	2741	5101
45°	603	2064	4542
50°	298	1416	3844
55°	235	784	3016
60°	157	651	2022
65°	133	583	903
70°	130	525	525
75°	172	563	522
80°	257	710	582
85°	391	1159	768

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 90°  
 Vertical Angle: 45°  
 Luminance: 4542 cd/sqm



TEST NUMBER: P1059338

CATALOG NUMBER: S123RDRP-S775D835-X4F0-XX-UDD-BVL-S

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	57.3	7.6
10°-20°	146.8	19.5
20°-30°	182.2	24.3
30°-40°	163.2	21.7
40°-50°	107.3	14.3
50°-60°	53.8	7.2
60°-70°	21.2	2.8
70°-80°	11.9	1.6
80°-90°	7.5	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°	386.3	51.4
0°-40°	549.6	73.2
0°-60°	710.7	94.6
0°-90°	751.2	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	751.2	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	625	625	625	625	625	
5°	602	611	612	616	622	56
15°	483	498	520	556	576	135
25°	333	354	387	442	483	152
35°	177	201	246	321	382	110
45°	36	60	124	209	274	34
55°	12	13	38	103	147	10
65°	5	13	21	27	32	5
75°	4	12	12	12	12	4
85°	3	9	9	9	6	3
90°	0	0	0	0	0	



TEST NUMBER: P1059338

CATALOG NUMBER: S123RDRP-S775D835-X4F0-XX-UDD-BVL-S

**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	625.4	625.4	625.4	625.4	625.4
2.5°	617.8	626.4	621.6	621.6	622.5
5°	601.5	611.1	612.0	615.8	621.6
7.5°	577.6	590.0	595.8	607.2	615.8
10°	548.9	562.3	573.8	593.9	604.4
12.5°	517.3	530.7	548.0	575.7	591.9
15°	482.9	498.2	520.2	555.6	575.7
17.5°	447.5	462.8	489.6	529.8	555.6
20°	410.2	427.5	456.1	502.0	533.6
22.5°	373.0	392.1	422.7	472.4	508.7
25°	332.8	353.8	387.3	441.8	482.9
27.5°	294.5	316.5	351.9	411.2	458.1
30°	255.3	277.3	315.6	379.6	432.2
32.5°	215.2	240.0	280.2	350.0	406.4
35°	176.9	200.8	245.8	321.3	382.5
37.5°	139.6	163.5	210.4	293.6	358.6
40°	102.3	127.2	178.8	266.8	332.8
42.5°	66.9	92.8	151.1	240.0	304.1
45°	36.3	60.2	124.3	209.4	273.5
47.5°	20.1	32.5	100.4	180.7	243.9
50°	16.3	18.2	77.5	154.0	210.4
52.5°	13.4	15.3	55.5	128.1	179.8
55°	11.5	13.4	38.3	103.3	147.3
57.5°	9.6	11.5	30.6	79.4	115.7
60°	6.7	11.5	27.7	58.3	86.1
62.5°	5.7	11.5	23.9	40.2	57.4
65°	4.8	13.4	21.0	26.8	32.5
67.5°	3.8	13.4	18.2	17.2	17.2
70°	3.8	13.4	15.3	14.3	15.3
72.5°	3.8	14.3	14.3	13.4	13.4
75°	3.8	12.4	12.4	11.5	11.5
77.5°	3.8	11.5	11.5	10.5	10.5
80°	3.8	10.5	10.5	9.6	8.6
82.5°	3.8	9.6	9.6	8.6	7.7
85°	2.9	8.6	8.6	8.6	5.7
87.5°	2.9	7.7	8.6	7.7	4.8
90°	0.0	0.0	0.0	0.0	0.0



TEST NUMBER: P1059338  
 CATALOG NUMBER: S123RDRP-S775D835-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	0.66	0.00	0.97	1.29	13.48	14.73	13.84	15.04	15.36
	3H	1.91	3.03	2.29	3.36	3.72	13.55	14.67	13.93	15.00	15.36
	4H	3.07	4.11	3.47	4.46	4.84	13.62	14.65	14.02	15.00	15.39
	6H	4.12	5.07	4.53	5.44	5.83	13.71	14.67	14.13	15.04	15.43
	8H	4.66	5.55	5.09	5.95	6.35	13.78	14.68	14.21	15.07	15.47
	12H	5.14	6.00	5.57	6.38	6.81	13.85	14.71	14.28	15.09	15.52
4H	2H	2.65	3.68	3.05	4.03	4.42	13.33	14.37	13.74	14.72	15.11
	3H	5.10	5.95	5.52	6.36	6.76	13.51	14.35	13.92	14.76	15.16
	4H	6.44	7.20	6.88	7.62	8.07	13.64	14.39	14.07	14.81	15.26
	6H	7.58	8.23	8.04	8.68	9.15	13.85	14.51	14.32	14.95	15.42
	8H	8.09	8.70	8.56	9.15	9.62	13.98	14.59	14.45	15.04	15.51
	12H	8.55	9.09	9.03	9.57	10.05	14.14	14.68	14.62	15.16	15.64
8H	4H	7.36	7.97	7.83	8.42	8.89	13.64	14.25	14.11	14.70	15.17
	6H	8.96	9.46	9.47	9.96	10.44	13.97	14.47	14.47	14.97	15.45
	8H	9.79	10.24	10.32	10.76	11.25	14.20	14.65	14.72	15.17	15.66
	12H	10.58	10.98	11.09	11.47	12.04	14.52	14.92	15.04	15.42	15.99
12H	4H	7.53	8.07	8.02	8.56	9.03	13.63	14.17	14.12	14.65	15.13
	6H	9.28	9.73	9.80	10.25	10.74	14.00	14.45	14.52	14.97	15.46
	8H	10.29	10.69	10.81	11.19	11.76	14.31	14.71	14.83	15.21	15.78