

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: P1059347

Luminaire Tested: S123RDRP-S775D840-X4F0-XX-UDD-BVL-S

Issue Date: 8/7/2025

**Test Information**

Test Method: LM-79-2024  
Report Number: P1059347  
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-S775D840-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: 4000K CCT, 80 CRI LEDS  
Ballast/Driver: -

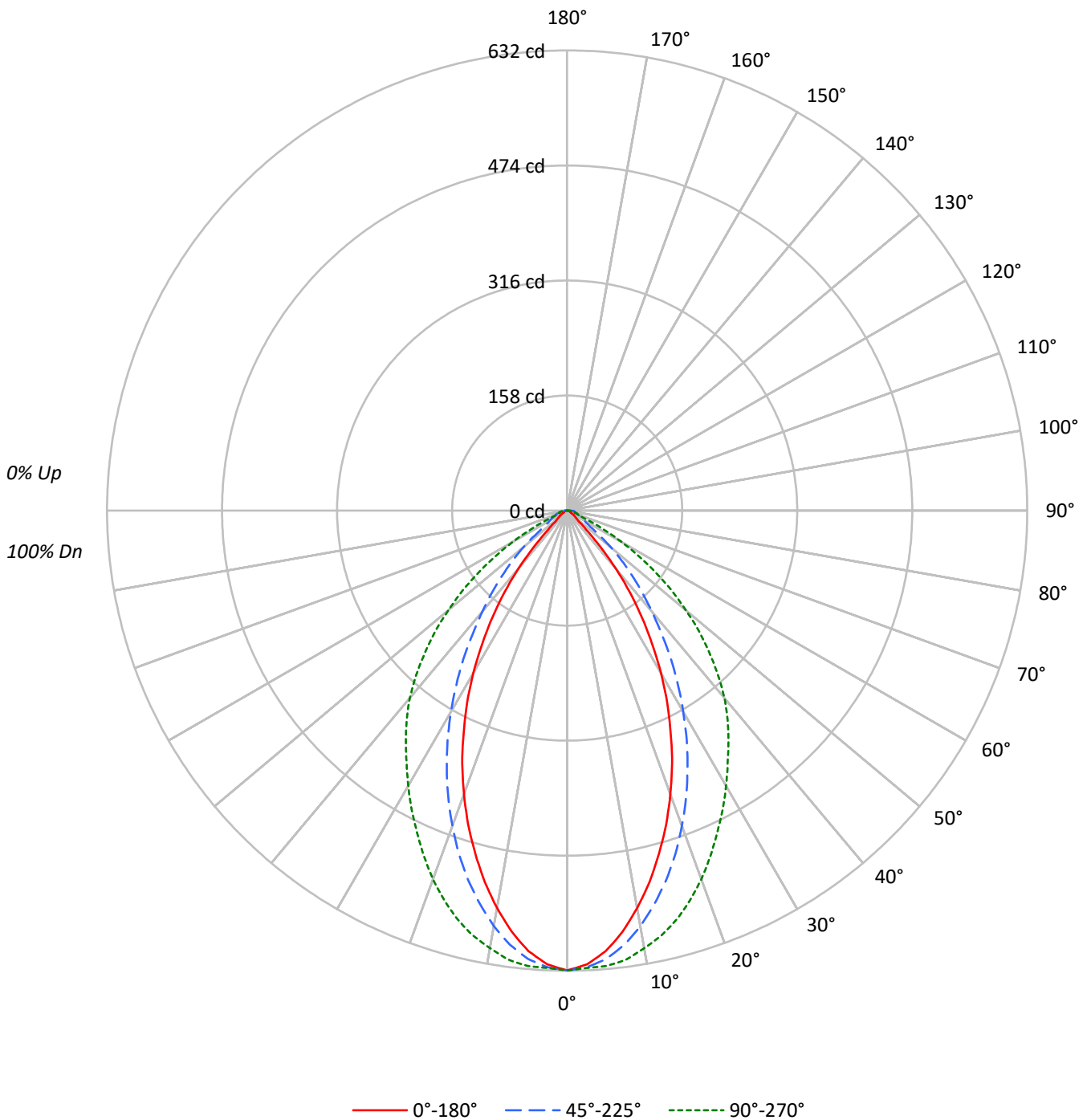
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 758.7 lumens  
Efficiency: N/A  
Efficacy: 29.4 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: P1059347

CATALOG NUMBER: S123RDRP-S775D840-X4F0-XX-UDD-BVL-S

### Luminous Intensity Polar Plot





TEST NUMBER: P1059347

CATALOG NUMBER: S123RDRP-S775D840-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°	7417	7417	7417
5°	7160	7286	7399
10°	6609	6909	7277
15°	5929	6387	7068
20°	5177	5756	6734
25°	4355	5067	6319
30°	3496	4321	5919
35°	2562	3558	5538
40°	1583	2768	5152
45°	609	2084	4587
50°	300	1429	3882
55°	237	790	3044
60°	160	658	2041
65°	133	589	911
70°	134	532	532
75°	177	572	526
80°	264	717	588
85°	391	1172	781

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 90°  
 Vertical Angle: 45°  
 Luminance: 4587 cd/sqm



TEST NUMBER: P1059347

CATALOG NUMBER: S123RDRP-S775D840-X4F0-XX-UDD-BVL-S

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	57.9	7.6
10°-20°	148.3	19.5
20°-30°	184.0	24.3
30°-40°	164.8	21.7
40°-50°	108.4	14.3
50°-60°	54.3	7.2
60°-70°	21.4	2.8
70°-80°	12.0	1.6
80°-90°	7.6	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°	390.2	51.4
0°-40°	555.0	73.2
0°-60°	717.7	94.6
0°-90°	758.7	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	758.7	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	632	632	632	632	632	
5°	607	617	618	622	628	56
15°	488	503	525	561	581	136
25°	336	357	391	446	488	154
35°	179	203	248	324	386	111
45°	37	61	126	212	276	35
55°	12	14	39	104	149	10
65°	5	14	21	27	33	5
75°	4	13	13	12	12	4
85°	3	9	9	9	6	3
90°	0	0	0	0	0	



TEST NUMBER: P1059347

CATALOG NUMBER: S123RDRP-S775D840-X4F0-XX-UDD-BVL-S

**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	631.6	631.6	631.6	631.6	631.6
2.5°	623.9	632.5	627.7	627.7	628.7
5°	607.4	617.1	618.1	621.9	627.7
7.5°	583.3	595.8	601.6	613.2	621.9
10°	554.3	567.8	579.4	599.7	610.3
12.5°	522.5	536.0	553.4	581.4	597.8
15°	487.7	503.1	525.4	561.1	581.4
17.5°	452.0	467.4	494.4	535.0	561.1
20°	414.3	431.7	460.6	507.0	538.9
22.5°	376.6	395.9	426.8	477.1	513.8
25°	336.1	357.3	391.1	446.2	487.7
27.5°	297.4	319.7	355.4	415.3	462.6
30°	257.8	280.1	318.7	383.4	436.5
32.5°	217.3	242.4	283.0	353.5	410.4
35°	178.7	202.8	248.2	324.5	386.3
37.5°	141.0	165.1	212.5	296.5	362.1
40°	103.3	128.4	180.6	269.4	336.1
42.5°	67.6	93.7	152.6	242.4	307.1
45°	36.7	60.8	125.5	211.5	276.2
47.5°	20.3	32.8	101.4	182.5	246.3
50°	16.4	18.3	78.2	155.5	212.5
52.5°	13.5	15.5	56.0	129.4	181.6
55°	11.6	13.5	38.6	104.3	148.7
57.5°	9.7	11.6	30.9	80.2	116.9
60°	6.8	11.6	28.0	58.9	86.9
62.5°	5.8	11.6	24.1	40.6	57.9
65°	4.8	13.5	21.2	27.0	32.8
67.5°	3.9	13.5	18.3	17.4	17.4
70°	3.9	13.5	15.5	14.5	15.5
72.5°	3.9	14.5	14.5	13.5	13.5
75°	3.9	12.6	12.6	11.6	11.6
77.5°	3.9	11.6	11.6	10.6	10.6
80°	3.9	10.6	10.6	9.7	8.7
82.5°	3.9	9.7	9.7	8.7	7.7
85°	2.9	8.7	8.7	8.7	5.8
87.5°	2.9	7.7	8.7	7.7	4.8
90°	0.0	0.0	0.0	0.0	0.0

TEST NUMBER: P1059347

CATALOG NUMBER: S123RDRP-S775D840-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	0.69	0.00	1.00	1.31	13.51	14.77	13.88	15.08	15.40
	3H	1.95	3.06	2.33	3.40	3.76	13.59	14.70	13.97	15.03	15.40
	4H	3.13	4.16	3.53	4.51	4.90	13.65	14.69	14.06	15.04	15.42
	6H	4.18	5.13	4.60	5.50	5.90	13.75	14.70	14.17	15.07	15.47
	8H	4.73	5.63	5.16	6.02	6.42	13.81	14.71	14.24	15.10	15.51
	12H	5.21	6.07	5.64	6.45	6.88	13.88	14.74	14.31	15.12	15.55
4H	2H	2.68	3.71	3.08	4.06	4.45	13.37	14.41	13.77	14.76	15.14
	3H	5.14	5.99	5.56	6.39	6.80	13.55	14.39	13.96	14.80	15.20
	4H	6.50	7.25	6.93	7.67	8.12	13.67	14.43	14.11	14.85	15.29
	6H	7.63	8.28	8.09	8.73	9.20	13.89	14.54	14.35	14.99	15.46
	8H	8.14	8.76	8.61	9.20	9.67	14.01	14.62	14.48	15.07	15.54
	12H	8.60	9.14	9.09	9.63	10.10	14.17	14.71	14.66	15.20	15.67
8H	4H	7.41	8.02	7.88	8.47	8.94	13.68	14.29	14.15	14.74	15.21
	6H	9.01	9.51	9.52	10.01	10.49	14.01	14.51	14.51	15.00	15.49
	8H	9.84	10.29	10.37	10.81	11.30	14.23	14.69	14.76	15.20	15.69
	12H	10.62	11.02	11.14	11.52	12.09	14.56	14.96	15.08	15.45	16.03
12H	4H	7.58	8.12	8.07	8.61	9.08	13.67	14.20	14.15	14.69	15.16
	6H	9.33	9.78	9.85	10.30	10.79	14.04	14.49	14.56	15.00	15.50
	8H	10.34	10.74	10.86	11.24	11.81	14.35	14.75	14.86	15.24	15.81