

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: P1059098

Luminaire Tested: S123RDRP-S1165D835-X4F0-XX-UDD-SVL-S

Issue Date: 8/7/2025

**Test Information**

Test Method: LM-79-2024  
Report Number: P1059098  
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-S1165D835-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: -

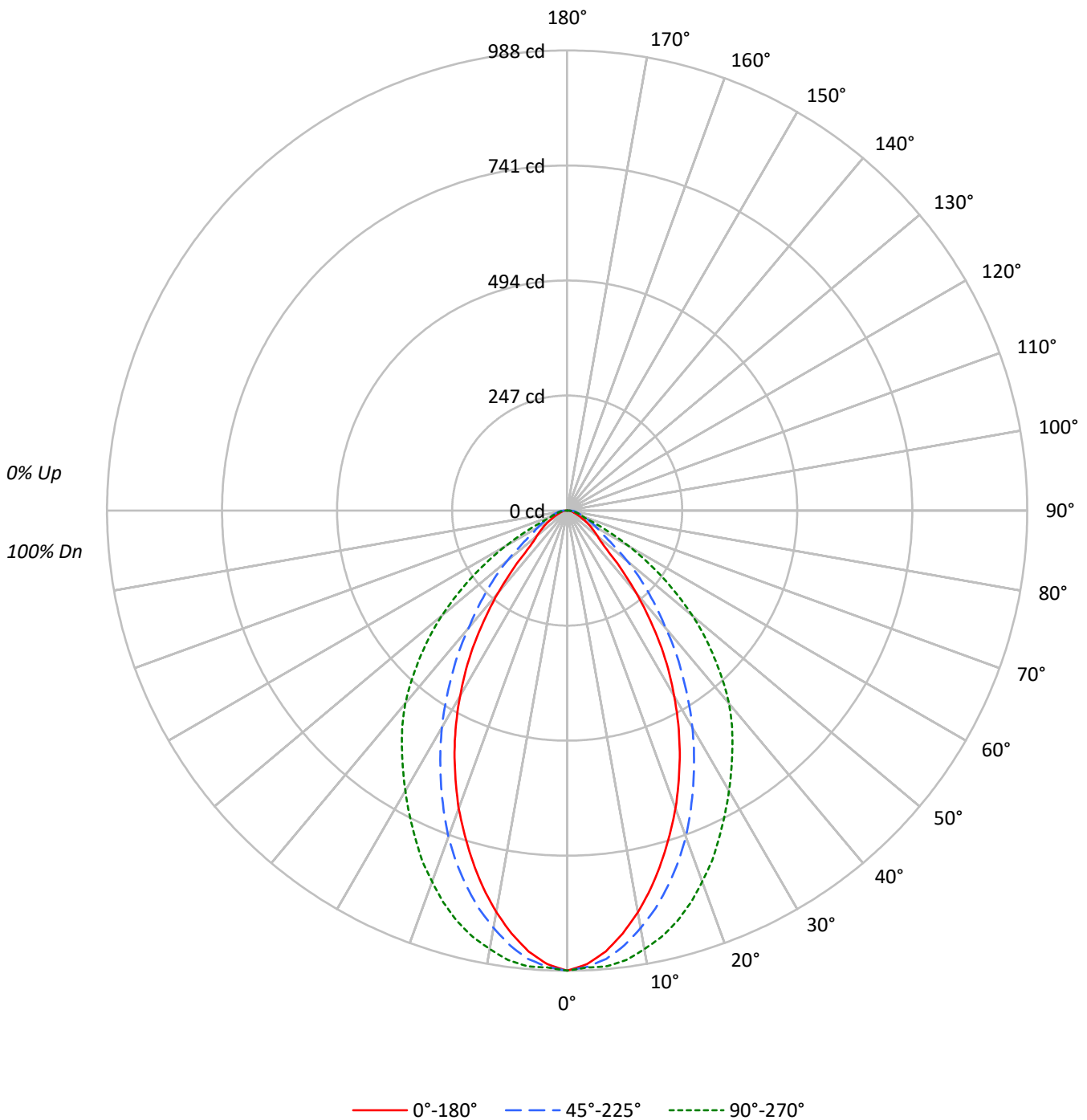
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 1322.8 lumens  
Efficiency: N/A  
Efficacy: 31.6 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): 41.8  
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: P1059098

CATALOG NUMBER: S123RDRP-S1165D835-X4F0-XX-UDD-SVL-S

### Luminous Intensity Polar Plot





TEST NUMBER: P1059098

CATALOG NUMBER: S123RDRP-S1165D835-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	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					100			
1	111	108	105	102	109	106	103	100	101	99	97	98	96	94	94	93	91	89					89			
2	104	98	92	88	102	96	91	87	92	88	85	89	86	83	86	84	81	79					79			
3	97	89	82	77	95	87	81	77	84	79	75	82	78	74	79	76	73	71					71			
4	91	81	74	69	88	80	73	68	77	72	67	75	70	66	73	69	66	64					64			
5	85	74	67	61	83	73	66	61	71	65	61	69	64	60	68	63	59	58					58			
6	79	68	61	56	78	67	60	55	66	60	55	64	59	54	63	58	54	52					52			
7	74	63	56	51	73	62	55	50	61	55	50	60	54	50	58	53	49	48					48			
8	70	58	51	46	69	58	51	46	57	50	46	56	50	46	54	49	45	44					44			
9	66	54	47	43	65	54	47	43	53	47	42	52	46	42	51	46	42	40					40			
10	62	51	44	39	61	50	44	39	50	43	39	49	43	39	48	43	39	37					37			

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

	0°	45°	90°
0°	11598	11598	11598
5°	11200	11388	11575
10°	10437	10849	11399
15°	9500	10150	11095
20°	8505	9316	10595
25°	7416	8314	10014
30°	6237	7292	9424
35°	4961	6180	8868
40°	3536	5040	8288
45°	2107	4047	7423
50°	1555	3082	6427
55°	1298	2096	5108
60°	1050	1726	3588
65°	842	1484	1923
70°	694	1287	1188
75°	653	1243	1112
80°	683	1366	1075
85°	970	1940	1361

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 90°  
 Vertical Angle: 45°  
 Luminance: 7423 cd/sqm



TEST NUMBER: P1059098

CATALOG NUMBER: S123RDRP-S1165D835-X4F0-XX-UDD-SVL-S

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	90.7	6.9
10°-20°	235.7	17.8
20°-30°	300.7	22.7
30°-40°	282.9	21.4
40°-50°	203.2	15.4
50°-60°	116.5	8.8
60°-70°	53.3	4.0
70°-80°	26.8	2.0
80°-90°	13.1	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°	627.1	47.4
0°-40°	910.0	68.8
0°-60°	1229.7	93.0
0°-90°	1322.8	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1322.8	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	988	988	988	988	988	
5°	950	969	966	973	982	88
15°	782	809	835	880	913	218
25°	572	598	642	711	773	261
35°	346	371	431	529	619	214
45°	127	154	244	359	447	106
55°	63	65	102	189	250	57
65°	30	42	53	59	69	30
75°	14	29	27	24	24	16
85°	7	14	14	13	10	7
90°	0	0	0	0	0	



TEST NUMBER: P1059098

CATALOG NUMBER: S123RDRP-S1165D835-X4F0-XX-UDD-SVL-S

**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	987.7	987.7	987.7	987.7	987.7
2.5°	974.7	989.2	980.5	980.5	982.0
5°	950.2	969.0	966.1	973.3	982.0
7.5°	915.6	935.8	941.6	958.9	973.3
10°	875.3	898.3	909.9	937.3	956.0
12.5°	830.6	856.5	875.3	909.9	937.3
15°	781.5	808.9	834.9	879.6	912.7
17.5°	731.1	758.5	791.6	843.5	882.5
20°	680.6	708.0	745.5	800.3	847.9
22.5°	625.8	653.2	693.6	755.6	813.3
25°	572.4	598.4	641.7	710.9	772.9
27.5°	516.2	542.2	589.8	664.7	733.9
30°	460.0	485.9	537.8	618.6	695.0
32.5°	403.7	428.3	484.5	573.9	656.1
35°	346.1	370.6	431.1	529.2	618.6
37.5°	286.9	311.5	382.1	488.8	581.1
40°	230.7	258.1	328.8	448.4	540.7
42.5°	175.9	204.8	285.5	405.2	494.6
45°	126.9	154.3	243.7	359.0	447.0
47.5°	96.6	111.0	206.2	312.9	400.9
50°	85.1	86.5	168.7	271.1	351.8
52.5°	73.5	75.0	131.2	230.7	299.9
55°	63.4	64.9	102.4	188.9	249.5
57.5°	53.4	56.2	83.6	150.0	200.4
60°	44.7	50.5	73.5	113.9	152.8
62.5°	36.0	46.1	63.4	83.6	109.6
65°	30.3	41.8	53.4	59.1	69.2
67.5°	24.5	38.9	44.7	41.8	41.8
70°	20.2	34.6	37.5	34.6	34.6
72.5°	17.3	33.2	31.7	28.8	28.8
75°	14.4	28.8	27.4	24.5	24.5
77.5°	13.0	24.5	23.1	21.6	20.2
80°	10.1	20.2	20.2	18.7	15.9
82.5°	8.7	17.3	17.3	15.9	13.0
85°	7.2	14.4	14.4	13.0	10.1
87.5°	5.8	13.0	13.0	11.5	7.2
90°	0.0	0.0	0.0	0.0	0.0



TEST NUMBER: P1059098  
 CATALOG NUMBER: S123RDRP-S1165D835-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	8.50	9.82	8.86	10.13	10.44	15.72	17.04	16.09	17.35	17.67
	3H	9.90	11.07	10.28	11.40	11.76	15.96	17.13	16.34	17.46	17.82
	4H	10.46	11.55	10.86	11.90	12.28	16.07	17.16	16.47	17.51	17.89
	6H	10.92	11.92	11.33	12.29	12.69	16.17	17.17	16.59	17.55	17.94
	8H	11.11	12.06	11.54	12.45	12.85	16.22	17.17	16.65	17.56	17.97
	12H	11.30	12.21	11.73	12.59	13.02	16.27	17.18	16.71	17.56	17.99
4H	2H	9.57	10.66	9.98	11.01	11.40	15.69	16.77	16.09	17.13	17.51
	3H	11.26	12.16	11.68	12.56	12.96	16.05	16.95	16.47	17.35	17.75
	4H	12.09	12.89	12.53	13.31	13.76	16.24	17.04	16.67	17.45	17.90
	6H	12.75	13.45	13.22	13.89	14.36	16.46	17.15	16.92	17.60	18.06
	8H	13.01	13.66	13.48	14.10	14.57	16.56	17.21	17.03	17.65	18.12
	12H	13.27	13.84	13.75	14.32	14.79	16.68	17.25	17.16	17.73	18.21
8H	4H	12.53	13.18	13.00	13.62	14.09	16.28	16.93	16.75	17.37	17.84
	6H	13.48	14.01	13.99	14.51	14.99	16.61	17.14	17.12	17.64	18.12
	8H	13.95	14.43	14.47	14.94	15.43	16.80	17.28	17.33	17.80	18.29
	12H	14.43	14.85	14.94	15.34	15.92	17.04	17.46	17.55	17.95	18.53
12H	4H	12.59	13.16	13.08	13.64	14.12	16.27	16.85	16.76	17.33	17.80
	6H	13.63	14.11	14.15	14.62	15.12	16.64	17.12	17.16	17.63	18.12
	8H	14.22	14.65	14.74	15.14	15.71	16.90	17.32	17.42	17.82	18.39