

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: P1059305

Luminaire Tested: S123RDRP-S560D935-X4F0-XX-UDD-SVL-S

Issue Date: 8/7/2025

**Test Information**

Test Method: LM-79-2024  
Report Number: P1059305  
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-S560D935-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, 90 CRI LEDS  
Ballast/Driver: -

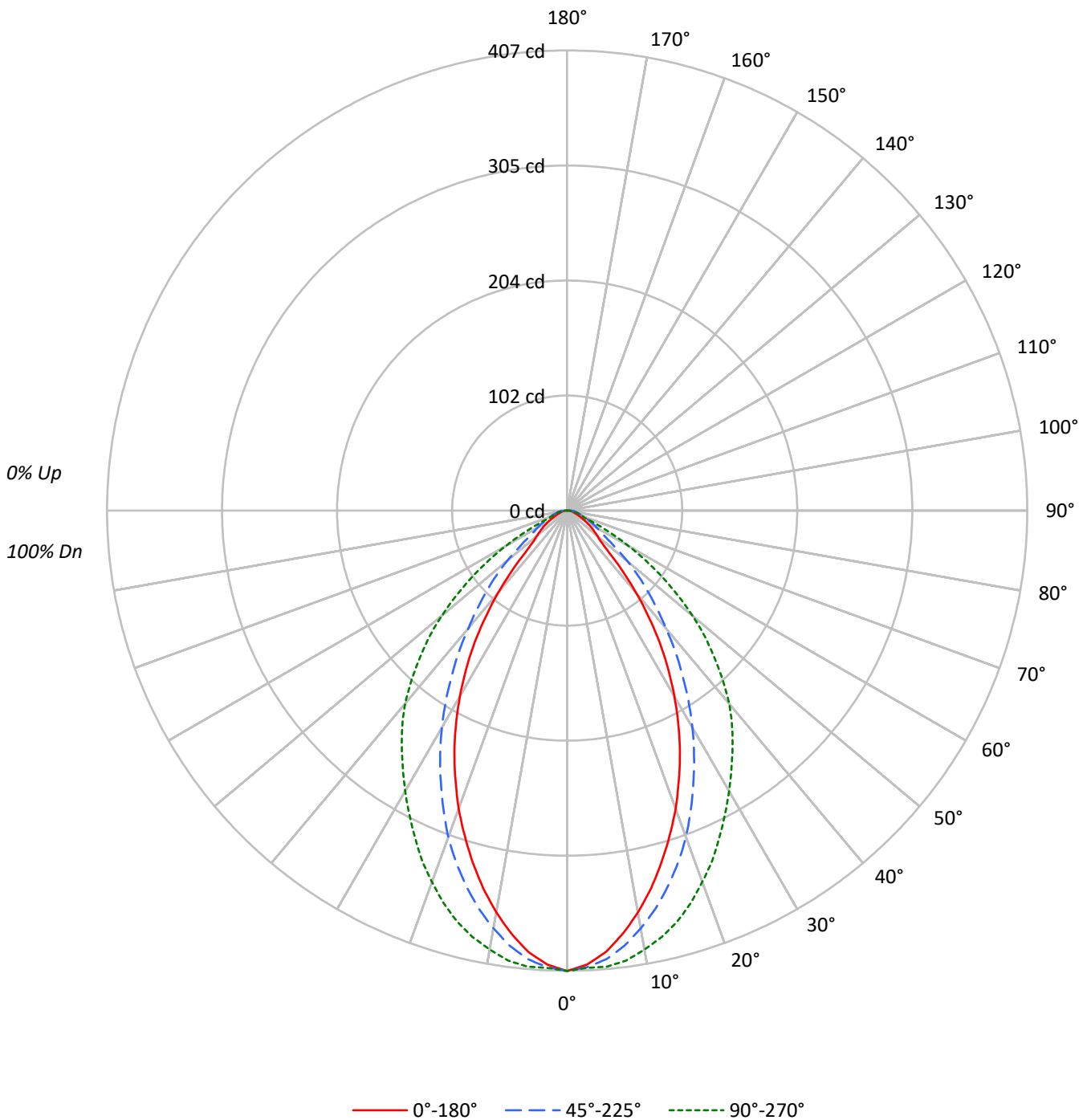
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 545.4 lumens  
Efficiency: N/A  
Efficacy: 27.8 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

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### Luminous Intensity Polar Plot





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**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	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°	4782	4782	4782
5°	4618	4695	4771
10°	4302	4473	4699
15°	3917	4184	4575
20°	3506	3840	4367
25°	3058	3427	4128
30°	2571	3006	3885
35°	2046	2547	3655
40°	1458	2077	3417
45°	869	1669	3061
50°	641	1271	2649
55°	536	864	2105
60°	432	712	1480
65°	347	611	792
70°	285	532	491
75°	268	513	458
80°	284	561	440
85°	404	795	566

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 90°  
 Vertical Angle: 45°  
 Luminance: 3061 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	37.4	6.9
10°-20°	97.2	17.8
20°-30°	123.9	22.7
30°-40°	116.6	21.4
40°-50°	83.8	15.4
50°-60°	48.0	8.8
60°-70°	22.0	4.0
70°-80°	11.0	2.0
80°-90°	5.4	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°	258.5	47.4
0°-40°	375.1	68.8
0°-60°	507.0	93.0
0°-90°	545.4	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	545.4	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	407	407	407	407	407	
5°	392	400	398	401	405	36
15°	322	334	344	363	376	90
25°	236	247	264	293	319	108
35°	143	153	178	218	255	88
45°	52	64	100	148	184	44
55°	26	27	42	78	103	23
65°	12	17	22	24	28	13
75°	6	12	11	10	10	7
85°	3	6	6	5	4	3
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	407.2	407.2	407.2	407.2	407.2
2.5°	401.9	407.8	404.2	404.2	404.8
5°	391.8	399.5	398.3	401.3	404.8
7.5°	377.5	385.8	388.2	395.3	401.3
10°	360.8	370.4	375.1	386.4	394.1
12.5°	342.4	353.1	360.8	375.1	386.4
15°	322.2	333.5	344.2	362.6	376.3
17.5°	301.4	312.7	326.4	347.8	363.8
20°	280.6	291.9	307.3	329.9	349.5
22.5°	258.0	269.3	285.9	311.5	335.3
25°	236.0	246.7	264.5	293.1	318.6
27.5°	212.8	223.5	243.1	274.0	302.6
30°	189.6	200.3	221.7	255.0	286.5
32.5°	166.4	176.6	199.7	236.6	270.5
35°	142.7	152.8	177.7	218.2	255.0
37.5°	118.3	128.4	157.5	201.5	239.6
40°	95.1	106.4	135.5	184.9	222.9
42.5°	72.5	84.4	117.7	167.0	203.9
45°	52.3	63.6	100.5	148.0	184.3
47.5°	39.8	45.8	85.0	129.0	165.3
50°	35.1	35.7	69.6	111.8	145.0
52.5°	30.3	30.9	54.1	95.1	123.6
55°	26.2	26.8	42.2	77.9	102.8
57.5°	22.0	23.2	34.5	61.8	82.6
60°	18.4	20.8	30.3	47.0	63.0
62.5°	14.9	19.0	26.2	34.5	45.2
65°	12.5	17.2	22.0	24.4	28.5
67.5°	10.1	16.1	18.4	17.2	17.2
70°	8.3	14.3	15.5	14.3	14.3
72.5°	7.1	13.7	13.1	11.9	11.9
75°	5.9	11.9	11.3	10.1	10.1
77.5°	5.4	10.1	9.5	8.9	8.3
80°	4.2	8.3	8.3	7.7	6.5
82.5°	3.6	7.1	7.1	6.5	5.4
85°	3.0	5.9	5.9	5.4	4.2
87.5°	2.4	5.4	5.4	4.8	3.0
90°	0.0	0.0	0.0	0.0	0.0



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**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	5.42	6.74	5.79	7.06	7.37	12.64	13.96	13.01	14.27	14.59
	3H	6.83	8.00	7.21	8.33	8.69	12.88	14.05	13.26	14.38	14.74
	4H	7.38	8.47	7.79	8.82	9.21	12.98	14.07	13.39	14.43	14.81
	6H	7.85	8.85	8.26	9.22	9.61	13.09	14.09	13.51	14.46	14.86
	8H	8.04	8.99	8.47	9.38	9.78	13.14	14.09	13.57	14.48	14.88
	12H	8.23	9.14	8.66	9.52	9.95	13.19	14.10	13.62	14.48	14.91
4H	2H	6.50	7.59	6.90	7.94	8.32	12.60	13.69	13.01	14.04	14.43
	3H	8.19	9.08	8.60	9.49	9.89	12.97	13.86	13.39	14.27	14.67
	4H	9.02	9.82	9.46	10.24	10.68	13.16	13.95	13.59	14.37	14.82
	6H	9.68	10.37	10.15	10.82	11.29	13.38	14.07	13.84	14.51	14.98
	8H	9.94	10.58	10.41	11.03	11.50	13.48	14.12	13.95	14.57	15.04
	12H	10.19	10.77	10.68	11.25	11.72	13.60	14.17	14.08	14.65	15.12
8H	4H	9.46	10.10	9.93	10.55	11.02	13.20	13.85	13.67	14.29	14.76
	6H	10.41	10.94	10.91	11.43	11.91	13.53	14.06	14.03	14.56	15.04
	8H	10.87	11.35	11.39	11.86	12.35	13.72	14.20	14.24	14.71	15.20
	12H	11.35	11.77	11.86	12.26	12.84	13.96	14.38	14.47	14.87	15.44
12H	4H	9.52	10.09	10.00	10.57	11.04	13.19	13.76	13.68	14.25	14.72
	6H	10.55	11.03	11.07	11.55	12.04	13.56	14.03	14.08	14.55	15.04
	8H	11.14	11.57	11.66	12.06	12.63	13.82	14.24	14.33	14.73	15.30