

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: P1059050

Luminaire Tested: S123RDRP-S1000D930-X4F0-XX-UDD-BVL-S

Issue Date: 8/7/2025

**Test Information**

Test Method: LM-79-2024  
Report Number: P1059050  
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-S1000D930-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: 3000K CCT, 90 CRI LEDS  
Ballast/Driver: -

**Summary**

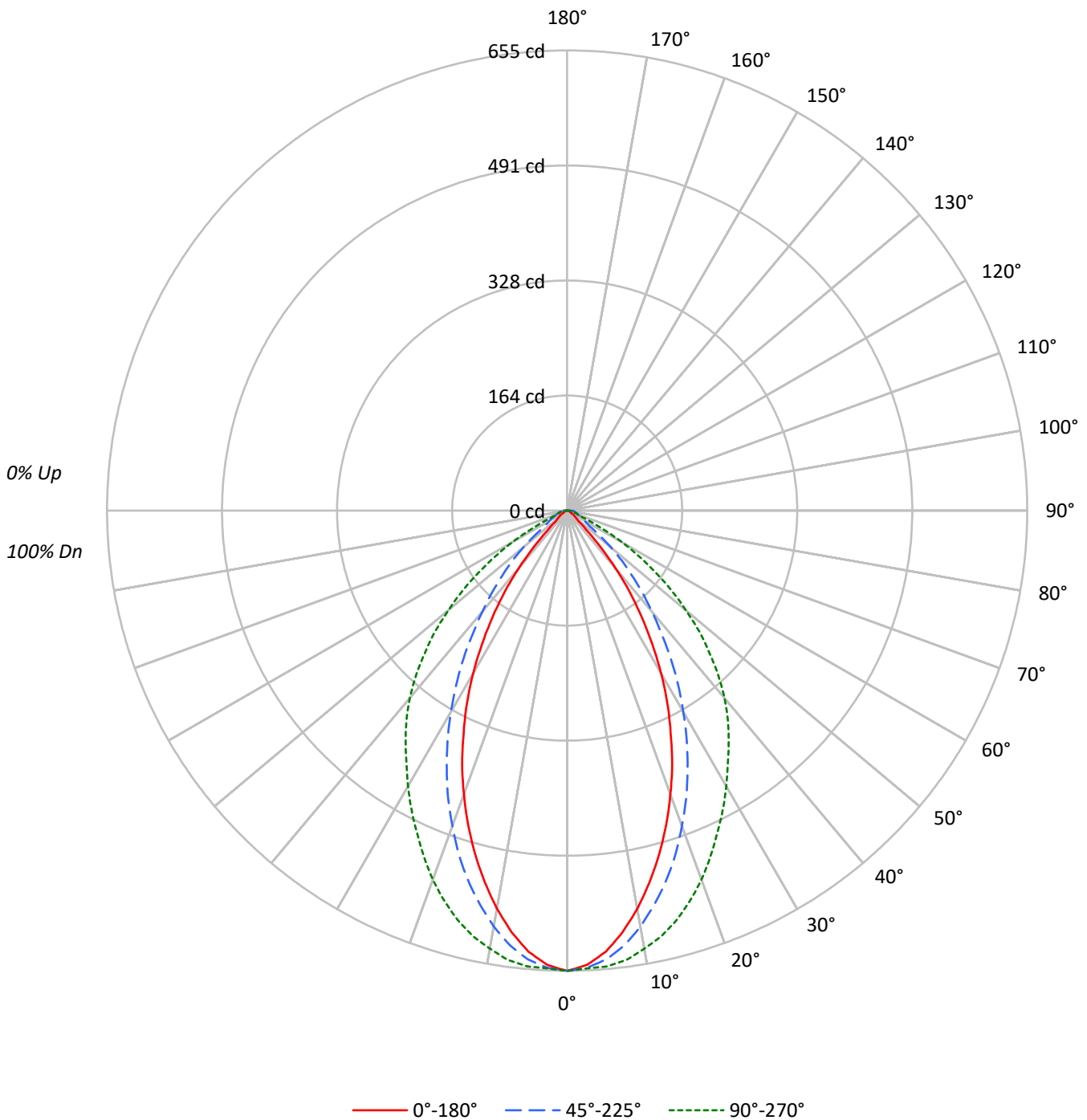
Lumens per Lamp: N/A  
Luminaire Lumens: 787.0 lumens  
Efficiency: N/A  
Efficacy: 22.5 lumens/watt  
Spacing Criteria (0/90/45): 0.79 / 1.06 / 0.94  
Luminous Opening: Rectangular (W 0.23' x L: 4' x H: 0')  
CIE Type: Direct

Input Watts (W): 35  
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	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°	7694	7694	7694
5°	7428	7558	7676
10°	6857	7167	7550
15°	6151	6625	7332
20°	5371	5972	6987
25°	4518	5258	6556
30°	3627	4483	6141
35°	2658	3691	5745
40°	1643	2873	5345
45°	633	2162	4758
50°	311	1483	4026
55°	246	821	3159
60°	164	683	2118
65°	139	611	947
70°	137	549	549
75°	181	590	544
80°	270	744	609
85°	404	1213	808

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 90°  
 Vertical Angle: 45°  
 Luminance: 4758 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	60.1	7.6
10°-20°	153.8	19.5
20°-30°	190.9	24.3
30°-40°	171.0	21.7
40°-50°	112.4	14.3
50°-60°	56.3	7.2
60°-70°	22.2	2.8
70°-80°	12.4	1.6
80°-90°	7.8	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°	404.8	51.4
0°-40°	575.8	73.2
0°-60°	744.6	94.6
0°-90°	787.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	787.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	655	655	655	655	655	
5°	630	640	641	645	651	58
15°	506	522	545	582	603	141
25°	349	371	406	463	506	159
35°	185	210	258	337	401	115
45°	38	63	130	219	286	36
55°	12	14	40	108	154	11
65°	5	14	22	28	34	5
75°	4	13	13	12	12	4
85°	3	9	9	9	6	3
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	655.2	655.2	655.2	655.2	655.2
2.5°	647.2	656.2	651.2	651.2	652.2
5°	630.2	640.2	641.2	645.2	651.2
7.5°	605.2	618.2	624.2	636.2	645.2
10°	575.1	589.1	601.1	622.2	633.2
12.5°	542.0	556.1	574.1	603.1	620.2
15°	506.0	522.0	545.0	582.1	603.1
17.5°	468.9	484.9	513.0	555.1	582.1
20°	429.8	447.9	477.9	526.0	559.1
22.5°	390.7	410.8	442.8	494.9	533.0
25°	348.7	370.7	405.8	462.9	506.0
27.5°	308.6	331.6	368.7	430.8	479.9
30°	267.5	290.6	330.6	397.8	452.9
32.5°	225.4	251.5	293.6	366.7	425.8
35°	185.4	210.4	257.5	336.6	400.8
37.5°	146.3	171.3	220.4	307.6	375.7
40°	107.2	133.3	187.4	279.5	348.7
42.5°	70.1	97.2	158.3	251.5	318.6
45°	38.1	63.1	130.2	219.4	286.5
47.5°	21.0	34.1	105.2	189.4	255.5
50°	17.0	19.0	81.2	161.3	220.4
52.5°	14.0	16.0	58.1	134.3	188.4
55°	12.0	14.0	40.1	108.2	154.3
57.5°	10.0	12.0	32.1	83.2	121.2
60°	7.0	12.0	29.1	61.1	90.2
62.5°	6.0	12.0	25.0	42.1	60.1
65°	5.0	14.0	22.0	28.1	34.1
67.5°	4.0	14.0	19.0	18.0	18.0
70°	4.0	14.0	16.0	15.0	16.0
72.5°	4.0	15.0	15.0	14.0	14.0
75°	4.0	13.0	13.0	12.0	12.0
77.5°	4.0	12.0	12.0	11.0	11.0
80°	4.0	11.0	11.0	10.0	9.0
82.5°	4.0	10.0	10.0	9.0	8.0
85°	3.0	9.0	9.0	9.0	6.0
87.5°	3.0	8.0	9.0	8.0	5.0
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	0.00	0.79	0.00	1.10	1.42	13.64	14.90	14.00	15.21	15.52
	3H	2.06	3.17	2.44	3.50	3.87	13.72	14.83	14.10	15.16	15.52
	4H	3.23	4.26	3.63	4.61	5.00	13.78	14.81	14.18	15.17	15.55
	6H	4.28	5.23	4.69	5.60	5.99	13.88	14.83	14.29	15.20	15.59
	8H	4.82	5.72	5.25	6.11	6.51	13.94	14.84	14.37	15.23	15.63
	12H	5.30	6.16	5.73	6.54	6.97	14.01	14.86	14.44	15.25	15.68
4H	2H	2.80	3.83	3.20	4.18	4.57	13.50	14.53	13.90	14.88	15.27
	3H	5.26	6.10	5.67	6.51	6.91	13.67	14.52	14.08	14.92	15.33
	4H	6.60	7.36	7.04	7.78	8.22	13.80	14.55	14.23	14.97	15.42
	6H	7.74	8.39	8.20	8.84	9.30	14.01	14.67	14.48	15.11	15.58
	8H	8.24	8.86	8.72	9.30	9.78	14.14	14.75	14.61	15.19	15.67
	12H	8.70	9.24	9.19	9.72	10.20	14.30	14.83	14.78	15.32	15.79
8H	4H	7.52	8.13	7.99	8.58	9.05	13.80	14.41	14.27	14.86	15.33
	6H	9.12	9.62	9.62	10.12	10.60	14.13	14.63	14.63	15.13	15.61
	8H	9.95	10.40	10.47	10.91	11.41	14.36	14.81	14.88	15.32	15.82
	12H	10.73	11.12	11.24	11.62	12.19	14.68	15.08	15.20	15.58	16.15
12H	4H	7.69	8.23	8.17	8.71	9.19	13.79	14.33	14.28	14.81	15.29
	6H	9.43	9.89	9.96	10.40	10.89	14.16	14.61	14.68	15.13	15.62
	8H	10.44	10.84	10.96	11.34	11.91	14.47	14.87	14.98	15.36	15.93