

Cooper Lighting Solutions Photometric Lab  
1121 Highway 74 South  
Peachtree City, GA 30269



Scaled data based on original data using  
LM-79-2019 Approved Method: Electrical and Photometric Measurements of Solid-  
State Lighting Products

Test Report Prepared for  
Cooper Lighting Solutions

Brand: NEO-RAY

Report Number: P1060988

Luminaire Tested: S124RDR-H795D927-X4F0-XX-UDD-SVL-S

Issue Date: 8/7/2025

**Test Information**

Test Method: LM-79-2019  
Report Number: P1060988  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2406-143-77)  
Test Lab: INNOVATION CENTER  
Issue Date: 8/7/2025  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: NEO-RAY  
Catalog Number: S124RDR-H795D927-X4F0-XX-UDD-SVL-S  
Description: DEFINE 4 SILVER REGRESSED DIRECT RECESSED HOUSING WITH SILVER STRAIGHT BLADE LOUVER WITH DIFFUSER  
HIGH PERFORMANCE LIGHT ENGINE  
Light Source: 2700K CCT, 90 CRI LEDS  
Ballast/Driver: -

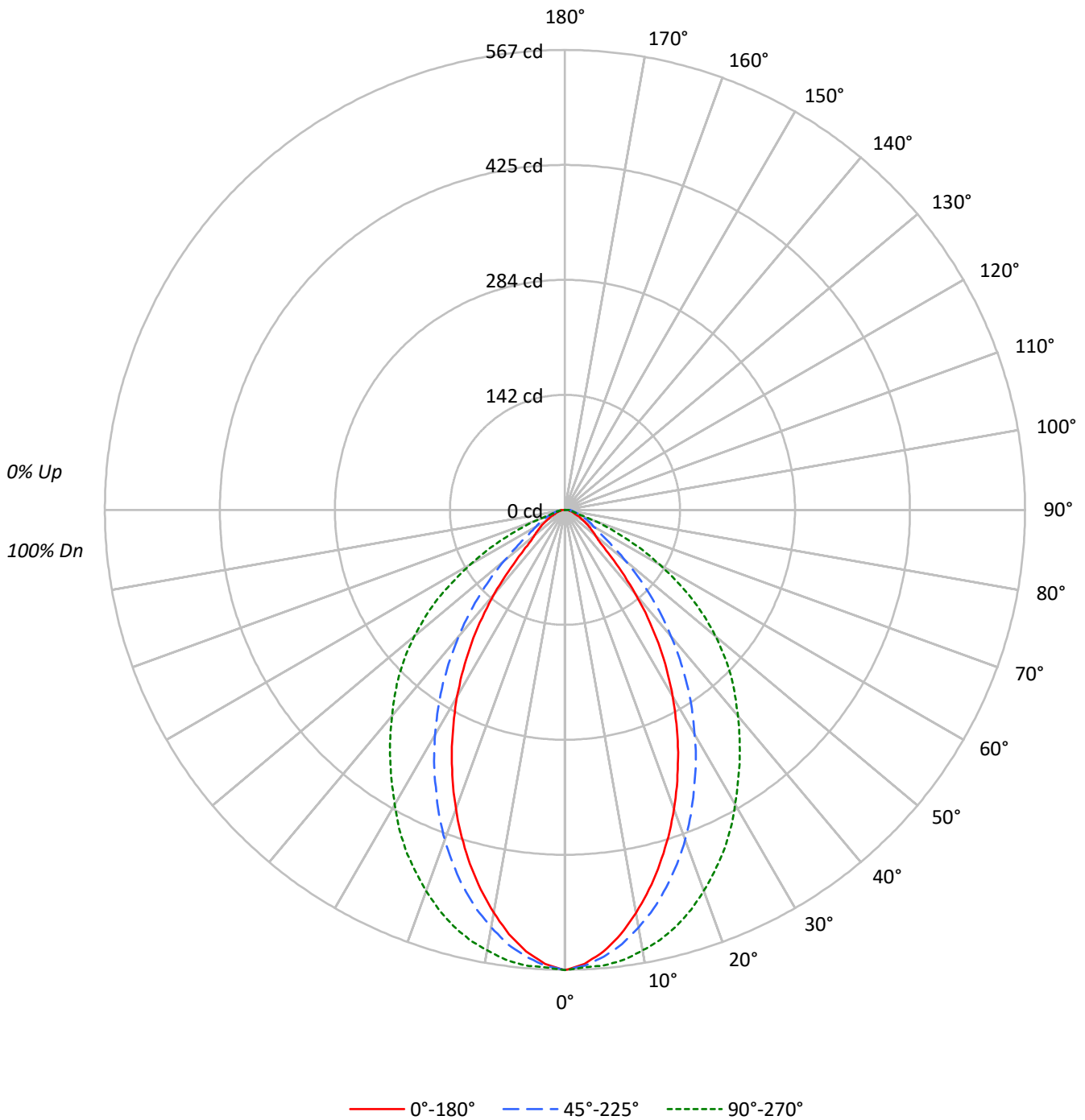
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 797.8 lumens  
Efficiency: N/A  
Efficacy: 33.9 lumens/watt  
Spacing Criteria (0/90/45): 0.83 / 1.12 / 1.01  
Luminous Opening: Rectangular (W 0.31' x L: 4' x H: 0')  
CIE Type: Direct  
  
Input Watts (W): 23.5  
Input Voltage (V): 120  
Input Current (Ain): 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	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	97	92	88	101	96	91	87	92	88	85	89	86	83	86	83	81	79				79
3	97	88	82	77	94	87	81	76	84	79	75	81	77	73	79	75	72	70				70
4	90	80	73	68	88	79	72	67	77	71	67	75	70	66	73	68	65	63				63
5	84	73	66	61	82	72	65	60	70	64	60	69	63	59	67	62	59	57				57
6	79	68	60	55	77	67	60	54	65	59	54	63	58	54	62	57	53	51				51
7	74	62	55	50	72	62	54	49	60	54	49	59	53	49	58	52	49	47				47
8	69	58	50	45	68	57	50	45	56	49	45	55	49	45	54	48	45	43				43
9	65	54	47	42	64	53	46	42	52	46	41	51	45	41	50	45	41	39				39
10	62	50	43	39	61	50	43	38	49	43	38	48	42	38	47	42	38	36				36

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

	0°	45°	90°
0°	4886	4886	4886
5°	4723	4779	4874
10°	4412	4570	4822
15°	4029	4299	4736
20°	3599	3969	4584
25°	3134	3580	4403
30°	2641	3180	4170
35°	2110	2754	3946
40°	1518	2289	3724
45°	915	1802	3526
50°	658	1306	3239
55°	552	878	2872
60°	448	696	2313
65°	352	632	1663
70°	310	526	891
75°	289	479	433
80°	288	501	392
85°	425	711	504

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 90°  
 Vertical Angle: 45°  
 Luminance: 3526 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	52.1	6.5
10°-20°	136.5	17.1
20°-30°	177.1	22.2
30°-40°	170.2	21.3
40°-50°	126.3	15.8
50°-60°	77.4	9.7
60°-70°	37.6	4.7
70°-80°	14.3	1.8
80°-90°	6.4	0.8
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°	365.6	45.8
0°-40°	535.9	67.2
0°-60°	739.5	92.7
0°-90°	797.8	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	797.8	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	567	567	567	567	567	
5°	546	554	553	558	564	51
15°	452	465	482	511	531	126
25°	330	346	377	425	463	151
35°	201	219	262	324	375	124
45°	75	94	148	226	290	62
55°	37	38	58	132	191	33
65°	17	19	31	49	82	18
75°	9	14	14	13	13	9
85°	4	7	7	6	5	4
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	567.4	567.4	567.4	567.4	567.4
2.5°	560.2	566.7	562.3	563.8	564.5
5°	546.4	554.4	552.9	558.0	563.8
7.5°	527.7	537.1	539.9	550.1	559.4
10°	504.6	516.1	522.6	539.2	551.5
12.5°	479.3	491.6	503.9	526.2	542.8
15°	451.9	464.9	482.2	511.1	531.3
17.5°	423.0	437.4	458.4	493.0	516.8
20°	392.7	407.8	433.1	471.4	500.2
22.5°	361.6	377.5	405.7	448.3	482.2
25°	329.9	346.5	376.8	425.2	463.4
27.5°	297.4	314.7	349.4	400.6	442.5
30°	265.6	282.2	319.8	375.4	419.4
32.5°	233.2	250.5	290.9	349.4	397.0
35°	200.7	218.7	262.0	324.1	375.4
37.5°	167.5	187.0	232.4	299.6	353.7
40°	135.0	153.8	203.6	274.3	331.3
42.5°	103.2	123.4	176.1	249.0	310.4
45°	75.1	93.8	148.0	225.9	289.5
47.5°	56.3	67.9	122.0	204.3	266.4
50°	49.1	51.3	97.5	180.5	241.8
52.5°	42.6	44.0	75.8	154.5	217.3
55°	36.8	38.3	58.5	132.1	191.3
57.5°	31.0	32.5	46.9	110.4	161.7
60°	26.0	27.4	40.4	88.1	134.3
62.5°	21.7	22.4	36.1	67.1	107.6
65°	17.3	18.8	31.0	49.1	81.6
67.5°	14.4	15.9	25.3	33.9	57.0
70°	12.3	15.9	20.9	23.8	35.4
72.5°	10.1	14.4	17.3	16.6	16.6
75°	8.7	13.7	14.4	13.0	13.0
77.5°	7.2	12.3	11.5	10.8	10.1
80°	5.8	10.1	10.1	8.7	7.9
82.5°	5.1	7.9	7.9	7.9	6.5
85°	4.3	7.2	7.2	6.5	5.1
87.5°	2.9	5.8	6.5	5.8	3.6
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	5.33	6.66	5.69	6.98	7.29	14.42	15.76	14.79	16.07	16.39
	3H	6.37	7.56	6.75	7.89	8.25	14.92	16.11	15.30	16.44	16.81
	4H	6.89	7.99	7.29	8.34	8.73	14.94	16.04	15.34	16.40	16.78
	6H	7.34	8.35	7.75	8.72	9.12	14.94	15.95	15.35	16.32	16.72
	8H	7.53	8.49	7.96	8.88	9.29	14.93	15.90	15.36	16.29	16.69
	12H	7.74	8.66	8.17	9.05	9.48	14.93	15.85	15.36	16.24	16.67
4H	2H	6.42	7.52	6.82	7.87	8.26	14.31	15.42	14.71	15.77	16.15
	3H	7.69	8.59	8.10	9.00	9.40	14.89	15.79	15.30	16.20	16.60
	4H	8.39	9.20	8.83	9.62	10.06	14.94	15.75	15.37	16.16	16.61
	6H	9.03	9.73	9.49	10.17	10.64	14.99	15.69	15.45	16.13	16.60
	8H	9.27	9.93	9.74	10.37	10.84	15.01	15.66	15.47	16.11	16.58
	12H	9.55	10.12	10.03	10.61	11.08	15.04	15.62	15.52	16.10	16.57
8H	4H	8.82	9.47	9.29	9.92	10.39	14.88	15.54	15.35	15.99	16.46
	6H	9.70	10.23	10.20	10.73	11.21	14.98	15.51	15.48	16.01	16.49
	8H	10.10	10.58	10.62	11.10	11.59	15.04	15.52	15.56	16.03	16.53
	12H	10.58	11.00	11.09	11.50	12.07	15.14	15.56	15.65	16.06	16.63
12H	4H	8.86	9.44	9.35	9.92	10.40	14.86	15.44	15.34	15.92	16.39
	6H	9.81	10.29	10.33	10.80	11.30	14.96	15.44	15.48	15.95	16.45
	8H	10.32	10.75	10.84	11.24	11.81	15.06	15.49	15.58	15.98	16.55