

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: P1061014

Luminaire Tested: S124RDR-H795D940-X4F0-XX-UDD-SVL-B

Issue Date: 8/7/2025

**Test Information**

Test Method: LM-79-2019  
Report Number: P1061014  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2406-143-38)  
Test Lab: INNOVATION CENTER  
Issue Date: 8/7/2025  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: NEO-RAY  
Catalog Number: S124RDR-H795D940-X4F0-XX-UDD-SVL-B  
Description: DEFINE 4 BLACK REGRESSED DIRECT RECESSED HOUSING WITH SILVER STRAIGHT BLADE LOUVER WITH DIFFUSER  
HIGH PERFORMANCE LIGHT ENGINE  
Light Source: 4000K CCT, 90 CRI LEDS  
Ballast/Driver: -

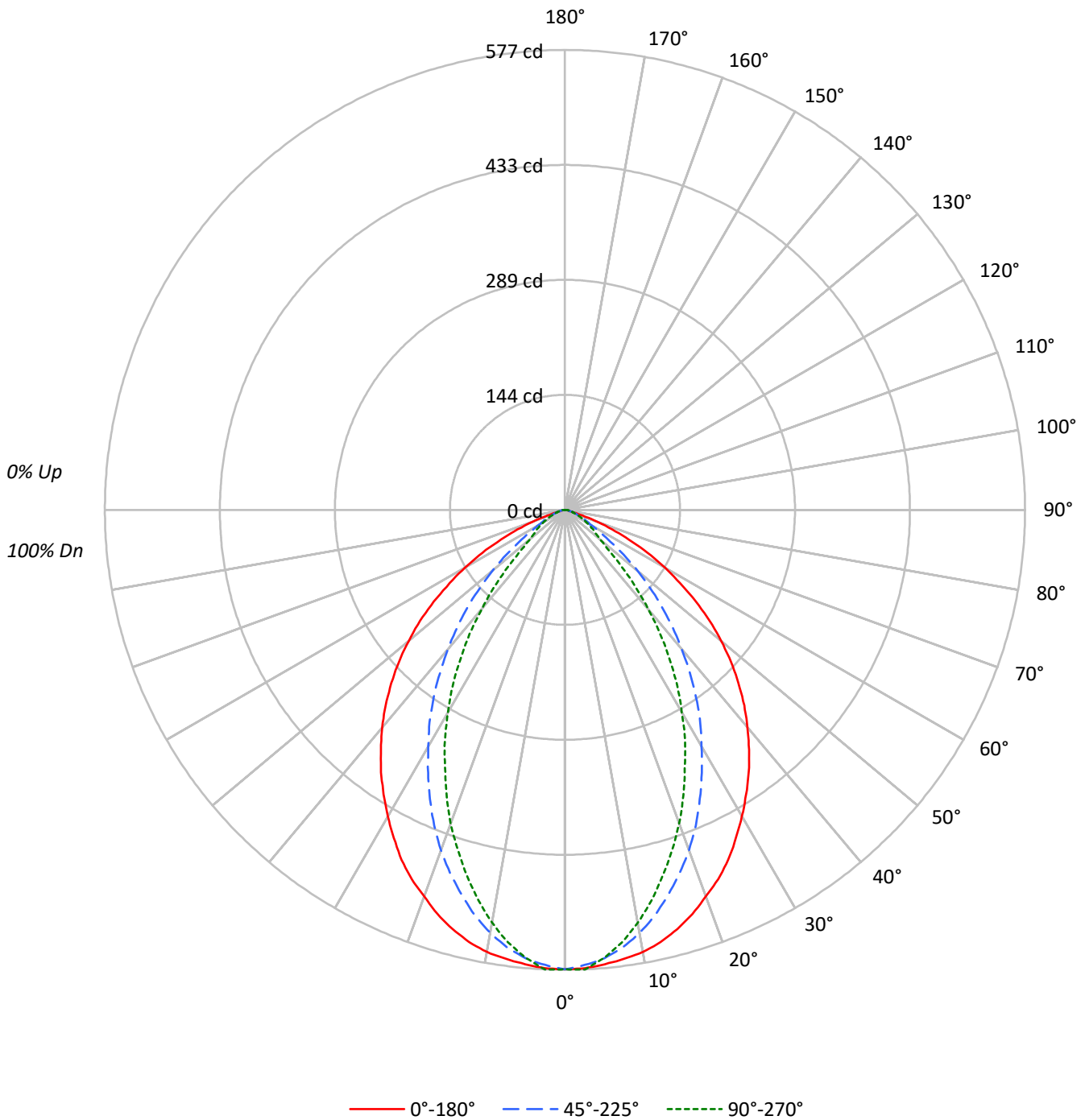
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 849.8 lumens  
Efficiency: N/A  
Efficacy: 36.2 lumens/watt  
Spacing Criteria (0/90/45): 1.16 / 0.87 / 1.02  
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	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	97	98	96	94	95	93	92	90
2	104	98	93	88	102	96	91	87	93	89	85	90	86	83	87	84	82	80
3	97	89	82	77	95	87	81	76	84	79	75	82	78	74	79	76	73	71
4	90	81	74	68	88	79	73	68	77	71	67	75	70	66	73	69	65	63
5	84	74	66	61	82	73	66	60	71	65	60	69	63	59	67	62	59	57
6	79	68	60	55	77	67	60	54	65	59	54	63	58	54	62	57	53	51
7	74	62	55	50	72	62	54	49	60	54	49	59	53	49	58	52	48	47
8	69	58	50	45	68	57	50	45	56	49	45	55	49	45	54	48	44	43
9	65	53	46	41	64	53	46	41	52	46	41	51	45	41	50	45	41	39
10	62	50	43	38	60	49	43	38	48	42	38	48	42	38	47	42	38	36

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

	0°	45°	90°
0°	4963	4963	4963
5°	4947	4884	4877
10°	4926	4713	4600
15°	4856	4458	4234
20°	4731	4166	3839
25°	4605	3802	3379
30°	4416	3407	2914
35°	4225	3013	2406
40°	4006	2564	1826
45°	3747	2096	1226
50°	3425	1587	761
55°	3010	1048	646
60°	2489	642	530
65°	1803	497	430
70°	982	368	327
75°	216	269	296
80°	159	203	243
85°	158	158	237

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 0°  
 Vertical Angle: 45°  
 Luminance: 3747 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	53.4	6.3
10°-20°	141.8	16.7
20°-30°	187.9	22.1
30°-40°	186.5	21.9
40°-50°	143.5	16.9
50°-60°	85.5	10.1
60°-70°	38.9	4.6
70°-80°	10.1	1.2
80°-90°	2.2	0.3
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°	383.1	45.1
0°-40°	569.6	67.0
0°-60°	798.6	94.0
0°-90°	849.8	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	849.8	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	576	576	576	576	576	
5°	572	573	565	565	564	54
15°	545	531	500	483	475	153
25°	485	450	400	367	356	222
35°	402	352	287	243	229	251
45°	308	248	172	120	101	237
55°	200	143	70	44	43	179
65°	88	53	24	21	21	89
75°	6	8	8	9	9	14
85°	2	2	2	2	2	2
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	576.4	576.4	576.4	576.4	576.4
2.5°	575.6	576.4	571.5	575.6	577.2
5°	572.3	573.1	565.0	565.0	564.2
7.5°	568.3	566.7	553.7	548.8	547.2
10°	563.4	557.7	539.0	529.3	526.1
12.5°	555.3	546.4	521.2	507.4	501.7
15°	544.7	530.9	500.1	483.0	474.9
17.5°	531.7	514.7	478.2	456.2	447.3
20°	516.3	493.6	454.6	427.0	418.9
22.5°	501.7	473.3	428.6	397.0	388.1
25°	484.7	449.7	400.2	366.9	355.6
27.5°	464.4	427.0	371.8	337.7	326.4
30°	444.1	402.7	342.6	306.9	293.1
32.5°	423.0	377.5	315.8	275.2	262.2
35°	401.9	351.5	286.6	242.7	228.9
37.5°	379.1	325.5	257.3	211.9	196.5
40°	356.4	300.4	228.1	181.8	162.4
42.5°	332.8	274.4	199.7	151.0	131.5
45°	307.7	247.6	172.1	120.1	100.7
47.5°	282.5	222.4	144.5	90.1	72.3
50°	255.7	195.6	118.5	65.8	56.8
52.5°	228.9	169.7	92.5	51.1	48.7
55°	200.5	142.9	69.8	43.8	43.0
57.5°	171.3	118.5	50.3	38.2	36.5
60°	144.5	95.8	37.3	32.5	30.8
62.5°	116.9	72.3	30.8	26.8	25.2
65°	88.5	52.8	24.4	21.1	21.1
67.5°	64.1	35.7	19.5	17.0	16.2
70°	39.0	21.9	14.6	13.8	13.0
72.5°	19.5	13.0	11.4	10.6	10.6
75°	6.5	8.1	8.1	8.9	8.9
77.5°	4.9	5.7	5.7	6.5	6.5
80°	3.2	4.1	4.1	4.9	4.9
82.5°	2.4	2.4	3.2	3.2	4.1
85°	1.6	1.6	1.6	2.4	2.4
87.5°	0.8	0.8	0.8	1.6	1.6
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	14.68	16.02	15.05	16.33	16.65	6.24	7.57	6.61	7.89	8.20
	3H	15.19	16.37	15.57	16.70	17.07	7.05	8.23	7.43	8.56	8.93
	4H	15.16	16.26	15.56	16.61	16.99	7.34	8.43	7.74	8.78	9.17
	6H	15.09	16.10	15.51	16.47	16.87	7.51	8.52	7.92	8.89	9.28
	8H	15.06	16.01	15.49	16.40	16.81	7.57	8.53	8.00	8.92	9.32
	12H	15.02	15.93	15.45	16.31	16.74	7.62	8.53	8.05	8.91	9.34
4H	2H	14.53	15.62	14.93	15.98	16.36	6.68	7.78	7.08	8.13	8.51
	3H	15.08	15.97	15.49	16.38	16.78	7.64	8.54	8.06	8.94	9.34
	4H	15.05	15.85	15.48	16.26	16.71	8.01	8.80	8.44	9.22	9.66
	6H	15.00	15.68	15.46	16.13	16.60	8.26	8.94	8.72	9.39	9.86
	8H	14.95	15.59	15.42	16.04	16.51	8.35	8.99	8.82	9.43	9.91
	12H	14.91	15.48	15.40	15.96	16.43	8.42	8.99	8.91	9.47	9.94
8H	4H	14.94	15.58	15.41	16.03	16.50	8.09	8.73	8.56	9.18	9.65
	6H	14.88	15.40	15.38	15.90	16.38	8.41	8.93	8.91	9.43	9.91
	8H	14.83	15.30	15.35	15.81	16.31	8.54	9.01	9.06	9.52	10.01
	12H	14.80	15.21	15.31	15.71	16.28	8.67	9.08	9.19	9.58	10.15
12H	4H	14.90	15.46	15.38	15.94	16.42	8.07	8.63	8.55	9.12	9.59
	6H	14.82	15.29	15.34	15.81	16.30	8.39	8.86	8.91	9.37	9.86
	8H	14.80	15.21	15.31	15.70	16.28	8.56	8.97	9.07	9.46	10.04