

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: P1060958

Luminaire Tested: S124RDRP-H795D835-X4F0-XX-UDD-BVL-S

Issue Date: 8/7/2025

**Test Information**

Test Method: LM-79-2024  
Report Number: P1060958  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2406-143-78)  
Test Lab: INNOVATION CENTER  
Issue Date: 8/7/2025  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: NEO-RAY  
Catalog Number: S124RDRP-H795D835-X4F0-XX-UDD-BVL-S  
Description: DEFINE 4 SILVER REGRESSED DIRECT RECESSED HOUSING WITH BLACK STRAIGHT BLADE LOUVER WITH DIFFUSER  
HIGH PERFORMANCE LIGHT ENGINE  
Light Source: 3500K CCT, 80 CRI LEDS  
Ballast/Driver: -

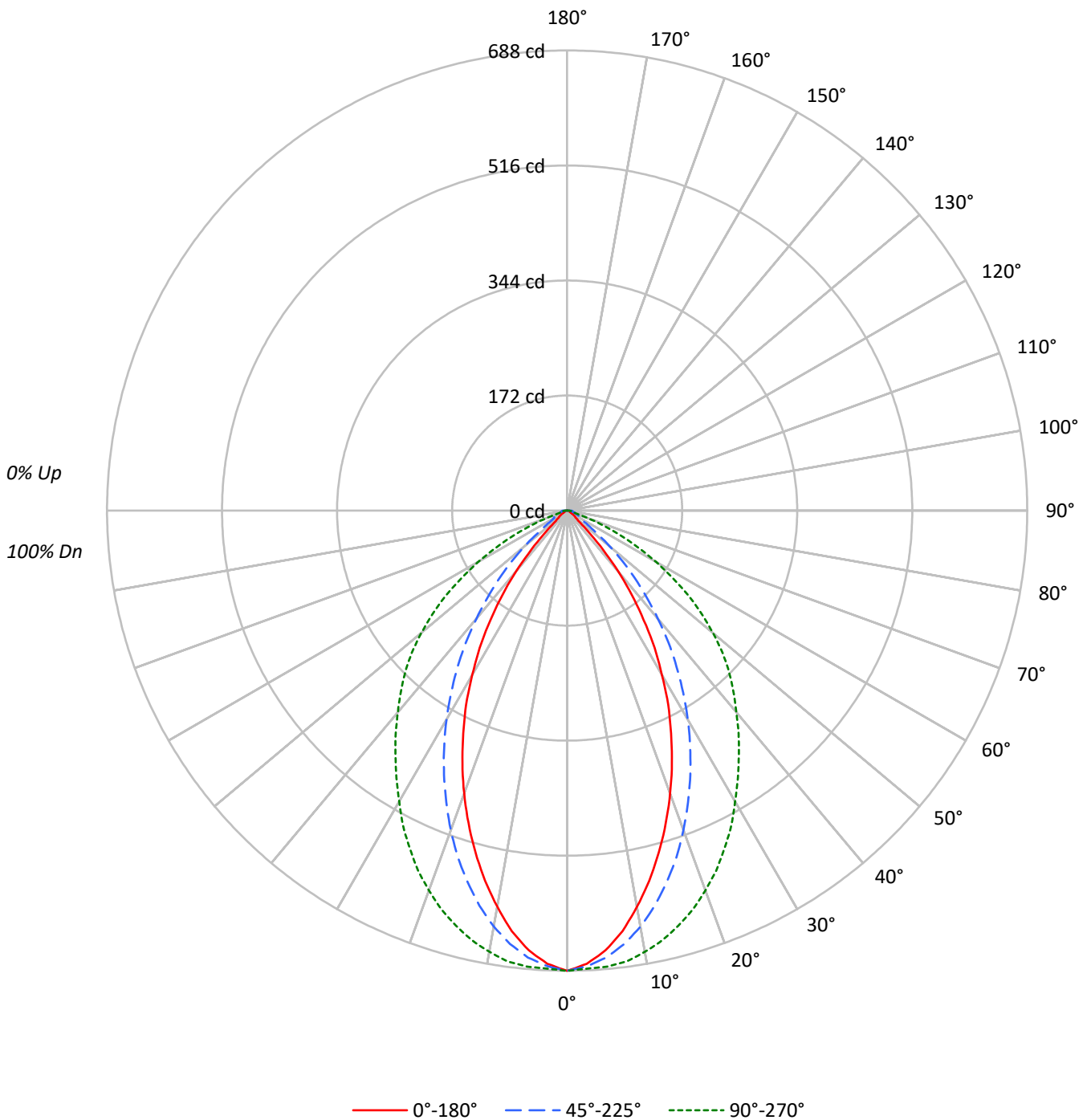
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 863.6 lumens  
Efficiency: N/A  
Efficacy: 36.7 lumens/watt  
Spacing Criteria (0/90/45): 0.79 / 1.11 / 0.97  
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 (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	103	109	106	103	101	102	100	98	98	96	95	95	93	92	90
2	105	99	94	89	102	97	92	88	93	90	86	90	87	84	87	85	83	81
3	98	90	84	79	96	88	83	78	86	81	77	83	79	76	81	77	74	73
4	92	82	75	70	90	81	75	70	79	73	69	77	72	68	75	71	67	65
5	86	76	68	63	84	75	68	63	73	67	62	71	66	62	69	65	61	59
6	80	70	62	57	79	69	62	57	67	61	57	66	60	56	64	59	56	54
7	76	64	57	52	74	64	57	52	62	56	52	61	56	51	60	55	51	50
8	71	60	53	48	70	59	53	48	58	52	48	57	51	47	56	51	47	46
9	67	56	49	44	66	55	49	44	54	48	44	53	48	44	52	47	44	42
10	64	52	46	41	62	52	45	41	51	45	41	50	45	41	49	44	41	39

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

	0°	45°	90°
0°	5925	5925	5925
5°	5704	5798	5917
10°	5259	5523	5858
15°	4720	5127	5728
20°	4126	4661	5538
25°	3490	4140	5291
30°	2819	3589	4994
35°	2098	2999	4704
40°	1332	2376	4426
45°	532	1743	4173
50°	232	1111	3810
55°	177	575	3325
60°	126	393	2637
65°	94	389	1801
70°	91	345	826
75°	120	363	333
80°	179	407	362
85°	356	721	543

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 90°  
 Vertical Angle: 45°  
 Luminance: 4173 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	63.0	7.3
10°-20°	162.5	18.8
20°-30°	205.2	23.8
30°-40°	188.5	21.8
40°-50°	128.5	14.9
50°-60°	69.7	8.1
60°-70°	29.6	3.4
70°-80°	10.2	1.2
80°-90°	6.5	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°	430.7	49.9
0°-40°	619.1	71.7
0°-60°	817.3	94.6
0°-90°	863.6	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	863.6	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	688	688	688	688	688	
5°	660	670	671	676	684	61
15°	530	547	575	616	642	148
25°	367	391	436	503	557	168
35°	200	226	285	375	448	124
45°	44	70	143	253	343	40
55°	12	13	38	139	222	11
65°	5	6	19	44	88	5
75°	4	10	11	10	10	4
85°	4	7	7	7	6	3
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	688.1	688.1	688.1	688.1	688.1
2.5°	678.1	686.3	681.7	683.6	685.4
5°	659.9	669.9	670.8	676.3	684.5
7.5°	634.3	646.2	653.5	667.2	679.9
10°	601.5	616.1	631.6	653.5	669.9
12.5°	566.9	582.4	605.2	636.2	658.0
15°	529.5	546.8	575.1	616.1	642.5
17.5°	490.3	509.5	543.2	591.5	625.2
20°	450.2	471.2	508.6	563.3	604.3
22.5°	409.2	431.1	472.1	534.1	582.4
25°	367.3	391.0	435.7	503.1	556.9
27.5°	327.2	349.1	398.3	472.1	531.4
30°	283.5	308.1	360.9	440.2	502.2
32.5°	243.3	267.0	322.6	407.4	474.8
35°	199.6	226.0	285.3	374.6	447.5
37.5°	158.6	184.1	248.8	343.6	421.1
40°	118.5	144.9	211.4	312.6	393.7
42.5°	79.3	107.5	175.9	280.7	368.2
45°	43.7	70.2	143.1	253.4	342.7
47.5°	22.8	38.3	112.1	226.0	315.4
50°	17.3	21.0	82.9	196.0	284.4
52.5°	14.6	15.5	56.5	165.9	253.4
55°	11.8	12.8	38.3	139.4	221.5
57.5°	9.1	10.0	27.3	113.9	185.9
60°	7.3	8.2	22.8	87.5	153.1
62.5°	5.5	6.4	21.9	64.7	120.3
65°	4.6	5.5	19.1	43.7	88.4
67.5°	3.6	5.5	16.4	28.3	59.2
70°	3.6	7.3	13.7	18.2	32.8
72.5°	3.6	8.2	11.8	11.8	11.8
75°	3.6	10.0	10.9	10.0	10.0
77.5°	3.6	9.1	9.1	9.1	9.1
80°	3.6	8.2	8.2	8.2	7.3
82.5°	3.6	7.3	8.2	8.2	6.4
85°	3.6	7.3	7.3	7.3	5.5
87.5°	2.7	7.3	7.3	7.3	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	0.00	0.00	0.00	0.00	0.00	14.62	15.90	14.99	16.21	16.53
	3H	0.00	0.00	0.00	0.00	0.00	14.98	16.11	15.36	16.44	16.80
	4H	0.00	0.55	0.00	0.90	1.28	14.94	15.99	15.35	16.34	16.73
	6H	0.86	1.82	1.27	2.19	2.58	14.92	15.88	15.33	16.25	16.65
	8H	1.53	2.44	1.96	2.83	3.24	14.91	15.82	15.34	16.21	16.62
	12H	2.33	3.20	2.76	3.58	4.01	14.91	15.78	15.34	16.16	16.59
4H	2H	0.31	1.36	0.71	1.71	2.09	14.43	15.47	14.83	15.83	16.21
	3H	1.73	2.59	2.15	2.99	3.40	14.82	15.68	15.23	16.08	16.48
	4H	3.18	3.94	3.61	4.36	4.81	14.80	15.56	15.24	15.98	16.43
	6H	4.42	5.08	4.88	5.53	5.99	14.82	15.48	15.28	15.92	16.39
	8H	4.99	5.60	5.46	6.05	6.52	14.83	15.44	15.30	15.89	16.36
	12H	5.66	6.20	6.14	6.68	7.16	14.87	15.41	15.35	15.89	16.37
8H	4H	4.25	4.87	4.72	5.32	5.79	14.70	15.31	15.17	15.76	16.23
	6H	5.86	6.37	6.37	6.86	7.35	14.75	15.25	15.25	15.75	16.23
	8H	6.70	7.15	7.22	7.67	8.16	14.81	15.26	15.33	15.78	16.27
	12H	7.66	8.06	8.18	8.56	9.13	14.92	15.32	15.44	15.82	16.39
12H	4H	4.44	4.99	4.93	5.47	5.94	14.66	15.20	15.15	15.69	16.16
	6H	6.21	6.66	6.74	7.18	7.67	14.72	15.17	15.24	15.69	16.18
	8H	7.23	7.63	7.75	8.13	8.70	14.82	15.22	15.34	15.72	16.29