

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: P1060976

Luminaire Tested: S124RDR-H795D850-X4F0-XX-UDD-BVL-S

Issue Date: 8/7/2025

**Test Information**

Test Method: LM-79-2019  
Report Number: P1060976  
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: S124RDR-H795D850-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: 5000K CCT, 80 CRI LEDS  
Ballast/Driver: -

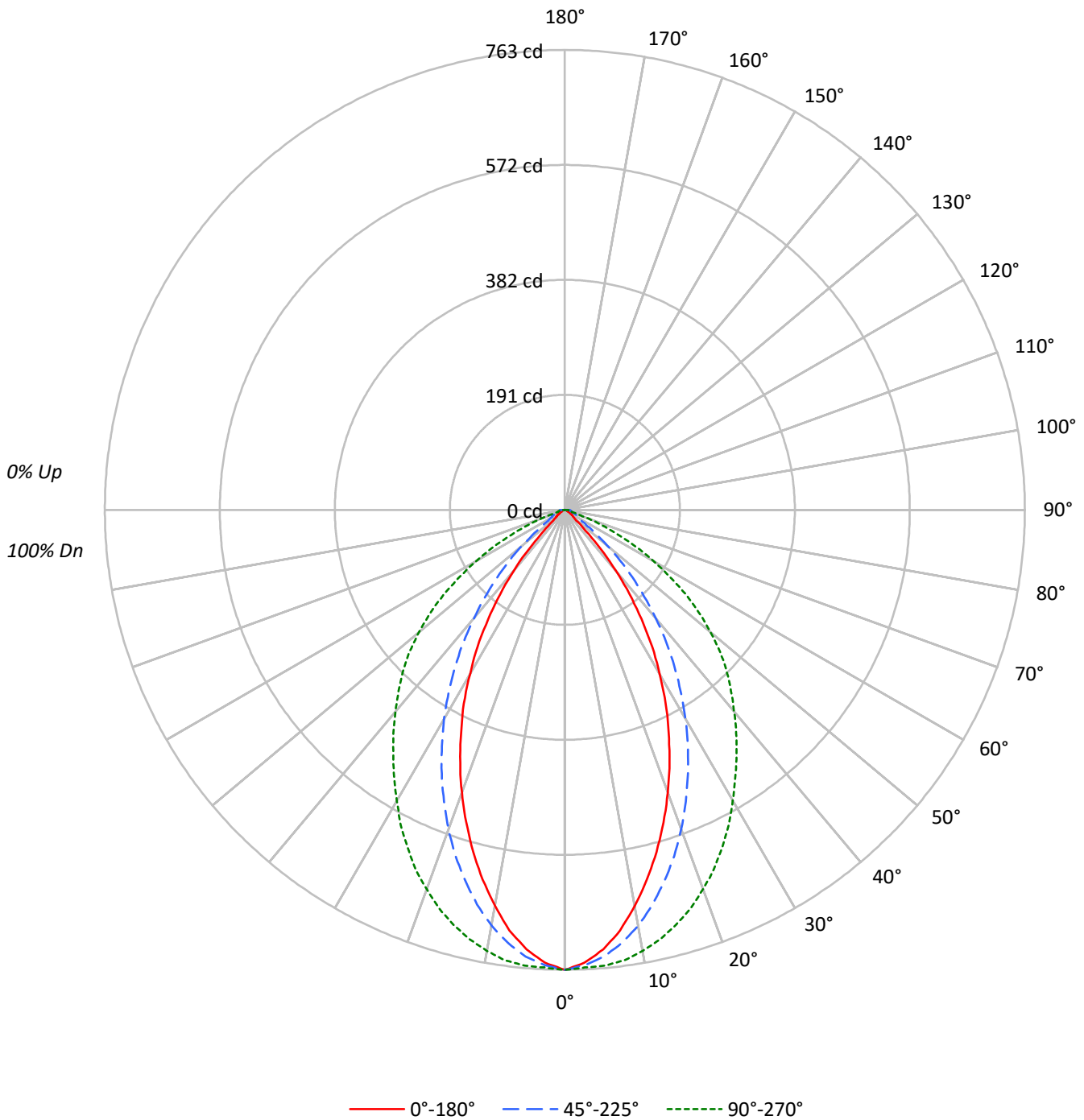
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 957.8 lumens  
Efficiency: N/A  
Efficacy: 40.8 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 (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				
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°	6571	6571	6571
5°	6326	6430	6562
10°	5833	6125	6496
15°	5236	5686	6353
20°	4575	5168	6141
25°	3870	4590	5868
30°	3125	3980	5537
35°	2327	3326	5217
40°	1477	2636	4908
45°	591	1933	4628
50°	257	1232	4225
55°	197	638	3687
60°	140	436	2924
65°	104	432	1997
70°	101	383	916
75°	133	403	369
80°	198	451	402
85°	395	800	603

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 90°  
 Vertical Angle: 45°  
 Luminance: 4628 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	69.8	7.3
10°-20°	180.2	18.8
20°-30°	227.6	23.8
30°-40°	209.0	21.8
40°-50°	142.5	14.9
50°-60°	77.3	8.1
60°-70°	32.8	3.4
70°-80°	11.3	1.2
80°-90°	7.2	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°	477.6	49.9
0°-40°	686.6	71.7
0°-60°	906.4	94.6
0°-90°	957.8	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	957.8	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	763	763	763	763	763	
5°	732	743	744	750	759	68
15°	587	606	638	683	713	164
25°	407	434	483	558	618	186
35°	221	251	316	415	496	138
45°	48	78	159	281	380	45
55°	13	14	42	155	246	12
65°	5	6	21	48	98	5
75°	4	11	12	11	11	4
85°	4	8	8	8	6	4
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	763.1	763.1	763.1	763.1	763.1
2.5°	752.0	761.1	756.0	758.1	760.1
5°	731.8	742.9	743.9	750.0	759.1
7.5°	703.5	716.6	724.7	739.9	754.0
10°	667.1	683.3	700.5	724.7	742.9
12.5°	628.7	645.9	671.1	705.5	729.8
15°	587.3	606.5	637.8	683.3	712.6
17.5°	543.8	565.0	602.4	656.0	693.4
20°	499.3	522.6	564.0	624.7	670.1
22.5°	453.8	478.1	523.6	592.3	645.9
25°	407.3	433.6	483.1	557.9	617.6
27.5°	362.9	387.1	441.7	523.6	589.3
30°	314.3	341.6	400.3	488.2	556.9
32.5°	269.9	296.2	357.8	451.8	526.6
35°	221.4	250.7	316.4	415.4	496.3
37.5°	175.9	204.2	275.9	381.1	467.0
40°	131.4	160.7	234.5	346.7	436.6
42.5°	87.9	119.3	195.1	311.3	408.3
45°	48.5	77.8	158.7	281.0	380.0
47.5°	25.3	42.5	124.3	250.7	349.7
50°	19.2	23.2	92.0	217.3	315.4
52.5°	16.2	17.2	62.7	184.0	281.0
55°	13.1	14.2	42.5	154.6	245.6
57.5°	10.1	11.1	30.3	126.3	206.2
60°	8.1	9.1	25.3	97.0	169.8
62.5°	6.1	7.1	24.3	71.8	133.4
65°	5.1	6.1	21.2	48.5	98.0
67.5°	4.0	6.1	18.2	31.3	65.7
70°	4.0	8.1	15.2	20.2	36.4
72.5°	4.0	9.1	13.1	13.1	13.1
75°	4.0	11.1	12.1	11.1	11.1
77.5°	4.0	10.1	10.1	10.1	10.1
80°	4.0	9.1	9.1	9.1	8.1
82.5°	4.0	8.1	9.1	9.1	7.1
85°	4.0	8.1	8.1	8.1	6.1
87.5°	3.0	8.1	8.1	8.1	4.0
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	0.00	0.00	0.00	0.00	14.98	16.26	15.35	16.57	16.88
	3H	0.00	0.00	0.00	0.00	0.31	15.34	16.46	15.72	16.80	17.16
	4H	0.00	0.91	0.27	1.26	1.65	15.30	16.35	15.71	16.70	17.09
	6H	1.22	2.19	1.64	2.56	2.95	15.28	16.24	15.69	16.61	17.01
	8H	1.90	2.81	2.33	3.20	3.61	15.27	16.18	15.70	16.57	16.98
	12H	2.70	3.57	3.13	3.95	4.38	15.27	16.14	15.70	16.52	16.95
4H	2H	0.67	1.72	1.08	2.07	2.46	14.78	15.83	15.19	16.18	16.57
	3H	2.10	2.95	2.51	3.36	3.76	15.18	16.03	15.59	16.44	16.84
	4H	3.54	4.31	3.98	4.73	5.17	15.16	15.92	15.59	16.34	16.79
	6H	4.79	5.44	5.25	5.89	6.36	15.18	15.84	15.64	16.28	16.75
	8H	5.35	5.97	5.82	6.41	6.89	15.19	15.80	15.66	16.25	16.72
	12H	6.02	6.57	6.51	7.05	7.52	15.22	15.77	15.71	16.25	16.73
8H	4H	4.62	5.23	5.09	5.68	6.15	15.06	15.67	15.53	16.12	16.59
	6H	6.23	6.73	6.73	7.23	7.71	15.11	15.61	15.61	16.11	16.59
	8H	7.06	7.52	7.59	8.03	8.52	15.17	15.62	15.69	16.14	16.63
	12H	8.03	8.43	8.54	8.92	9.50	15.28	15.68	15.80	16.18	16.75
12H	4H	4.81	5.35	5.30	5.83	6.31	15.02	15.56	15.51	16.05	16.52
	6H	6.58	7.03	7.10	7.55	8.04	15.08	15.53	15.60	16.05	16.54
	8H	7.60	8.00	8.11	8.49	9.07	15.18	15.58	15.70	16.08	16.65