

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: P1061012

Luminaire Tested: S124RDR-H795D940-X4F0-XX-UDD-BVL-S

Issue Date: 8/7/2025

**Test Information**

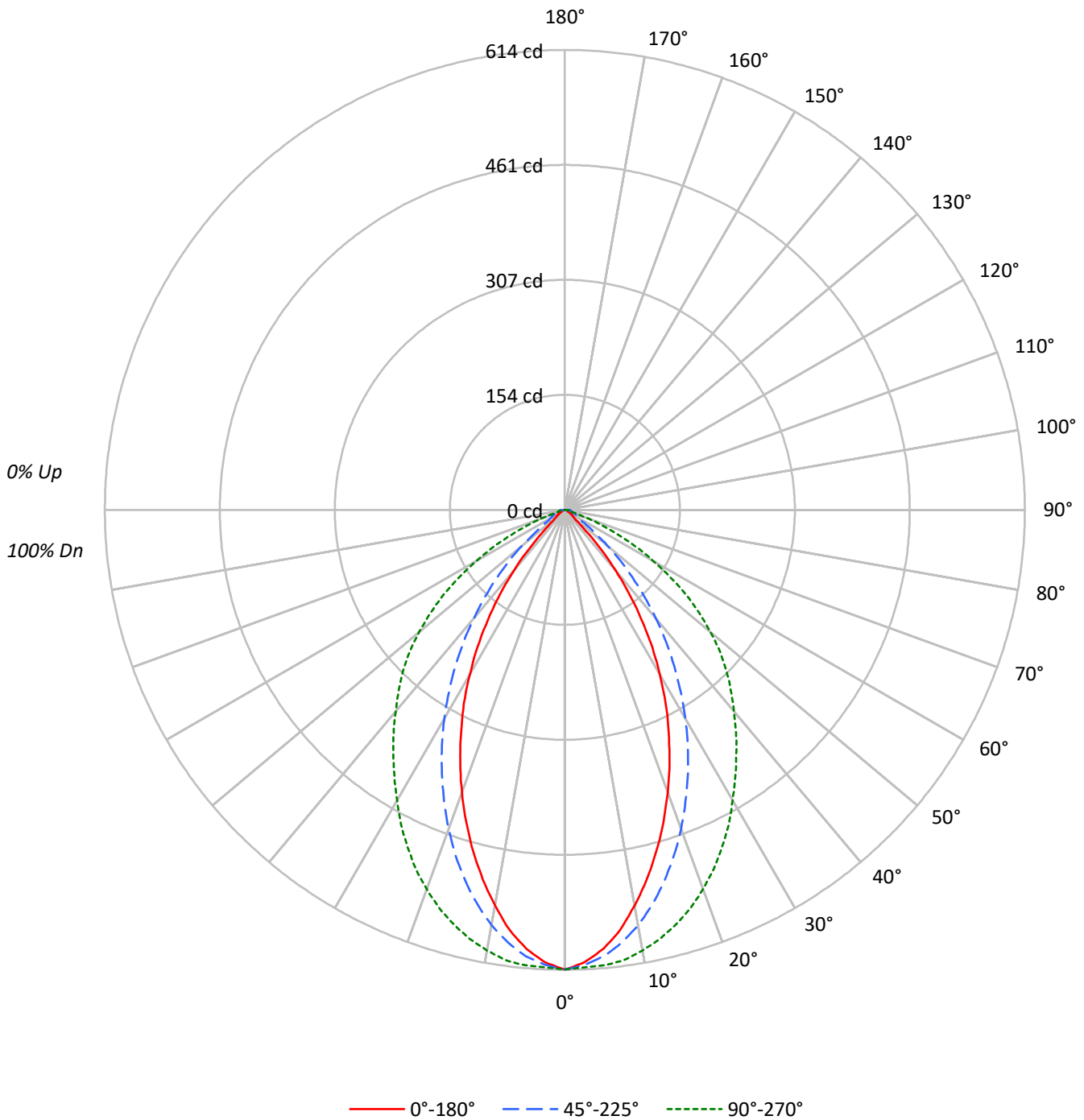
Test Method: LM-79-2019  
Report Number: P1061012  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2406-143-78)  
Test Lab: INNOVATION CENTER  
Issue Date: 8/7/2025  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: NEO-RAY  
Catalog Number: S124RDR-H795D940-X4F0-XX-UDD-BVL-S  
Description: DEFINE 4 SILVER REGRESSED DIRECT RECESSED HOUSING WITH BLACK STRAIGHT BLADE  
LOUVER WITH DIFFUSER  
HIGH PERFORMANCE LIGHT ENGINE  
Light Source: 4000K CCT, 90 CRI LEDS  
Ballast/Driver: -

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 770.1 lumens  
Efficiency: N/A  
Efficacy: 32.8 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	102	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°	5284	5284	5284
5°	5086	5171	5276
10°	4690	4925	5223
15°	4210	4572	5108
20°	3679	4156	4937
25°	3112	3691	4718
30°	2514	3200	4453
35°	1871	2674	4194
40°	1188	2120	3947
45°	475	1554	3722
50°	206	991	3397
55°	159	512	2965
60°	112	350	2351
65°	84	348	1606
70°	83	307	738
75°	110	326	296
80°	164	362	322
85°	326	642	484

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 90°  
 Vertical Angle: 45°  
 Luminance: 3722 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	56.2	7.3
10°-20°	144.9	18.8
20°-30°	183.0	23.8
30°-40°	168.1	21.8
40°-50°	114.6	14.9
50°-60°	62.1	8.1
60°-70°	26.4	3.4
70°-80°	9.1	1.2
80°-90°	5.8	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°	384.0	49.9
0°-40°	552.1	71.7
0°-60°	728.8	94.6
0°-90°	770.1	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	770.1	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	614	614	614	614	614	
5°	588	597	598	603	610	55
15°	472	488	513	549	573	132
25°	328	349	388	449	497	150
35°	178	202	254	334	399	111
45°	39	63	128	226	306	36
55°	11	11	34	124	198	9
65°	4	5	17	39	79	4
75°	3	9	10	9	9	3
85°	3	6	6	6	5	3
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	613.6	613.6	613.6	613.6	613.6
2.5°	604.7	612.0	607.9	609.5	611.2
5°	588.4	597.3	598.2	603.0	610.4
7.5°	565.7	576.2	582.7	594.9	606.3
10°	536.4	549.4	563.2	582.7	597.3
12.5°	505.5	519.3	539.6	567.3	586.8
15°	472.2	487.6	512.8	549.4	573.0
17.5°	437.2	454.3	484.4	527.5	557.5
20°	401.5	420.2	453.5	502.3	538.8
22.5°	364.9	384.4	421.0	476.3	519.3
25°	327.5	348.7	388.5	448.6	496.6
27.5°	291.8	311.3	355.2	421.0	473.8
30°	252.8	274.7	321.8	392.5	447.8
32.5°	217.0	238.1	287.7	363.3	423.4
35°	178.0	201.6	254.4	334.0	399.0
37.5°	141.4	164.2	221.9	306.4	375.5
40°	105.7	129.2	188.6	278.8	351.1
42.5°	70.7	95.9	156.9	250.3	328.3
45°	39.0	62.6	127.6	225.9	305.6
47.5°	20.3	34.1	100.0	201.6	281.2
50°	15.4	18.7	74.0	174.7	253.6
52.5°	13.0	13.8	50.4	147.9	225.9
55°	10.6	11.4	34.1	124.3	197.5
57.5°	8.1	8.9	24.4	101.6	165.8
60°	6.5	7.3	20.3	78.0	136.5
62.5°	4.9	5.7	19.5	57.7	107.3
65°	4.1	4.9	17.1	39.0	78.8
67.5°	3.3	4.9	14.6	25.2	52.8
70°	3.3	6.5	12.2	16.3	29.3
72.5°	3.3	7.3	10.6	10.6	10.6
75°	3.3	8.9	9.8	8.9	8.9
77.5°	3.3	8.1	8.1	8.1	8.1
80°	3.3	7.3	7.3	7.3	6.5
82.5°	3.3	6.5	7.3	7.3	5.7
85°	3.3	6.5	6.5	6.5	4.9
87.5°	2.4	6.5	6.5	6.5	3.3
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	14.23	15.50	14.59	15.81	16.13
	3H	0.00	0.00	0.00	0.00	0.00	14.58	15.71	14.96	16.04	16.41
	4H	0.00	0.18	0.00	0.53	0.92	14.55	15.60	14.95	15.95	16.33
	6H	0.51	1.48	0.93	1.85	2.24	14.52	15.49	14.94	15.86	16.25
	8H	1.20	2.11	1.63	2.50	2.91	14.51	15.42	14.94	15.81	16.22
	12H	2.02	2.89	2.45	3.27	3.70	14.51	15.38	14.94	15.76	16.19
4H	2H	0.00	0.97	0.33	1.32	1.71	14.03	15.08	14.43	15.43	15.81
	3H	1.35	2.21	1.76	2.61	3.01	14.42	15.28	14.84	15.68	16.09
	4H	2.79	3.56	3.23	3.98	4.42	14.40	15.17	14.84	15.59	16.03
	6H	4.05	4.70	4.51	5.15	5.62	14.42	15.08	14.89	15.53	16.00
	8H	4.62	5.24	5.09	5.68	6.16	14.43	15.05	14.90	15.49	15.97
	12H	5.30	5.85	5.79	6.33	6.81	14.47	15.01	14.96	15.49	15.97
8H	4H	3.87	4.48	4.34	4.93	5.40	14.30	14.92	14.77	15.37	15.84
	6H	5.48	5.98	5.99	6.48	6.96	14.35	14.86	14.86	15.35	15.84
	8H	6.32	6.77	6.84	7.29	7.78	14.41	14.86	14.93	15.38	15.87
	12H	7.29	7.69	7.81	8.19	8.76	14.53	14.93	15.04	15.42	15.99
12H	4H	4.06	4.60	4.54	5.08	5.56	14.27	14.81	14.75	15.29	15.77
	6H	5.83	6.28	6.35	6.79	7.29	14.32	14.77	14.84	15.29	15.78
	8H	6.85	7.25	7.37	7.75	8.32	14.43	14.83	14.94	15.32	15.89