

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: P1060922

Luminaire Tested: S124RDR-H575D935-X4F0-XX-UDD-BVL-S

Issue Date: 8/7/2025

**Test Information**

Test Method: LM-79-2019  
Report Number: P1060922  
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-H575D935-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, 90 CRI LEDS  
Ballast/Driver: -

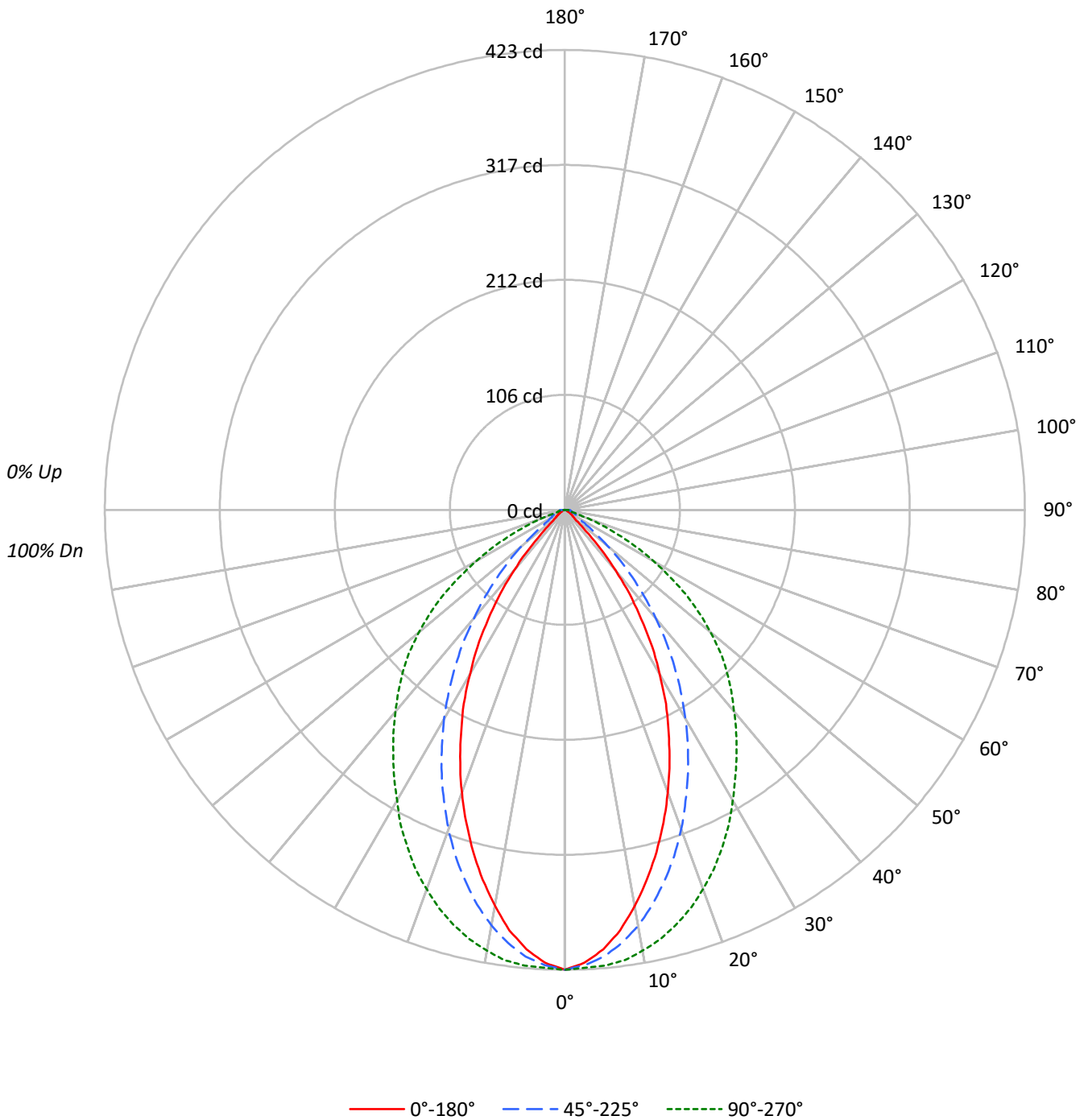
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 530.9 lumens  
Efficiency: N/A  
Efficacy: 30.5 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): 17.4  
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									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	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°	3643	3643	3643
5°	3507	3565	3637
10°	3234	3395	3601
15°	2902	3152	3521
20°	2537	2866	3404
25°	2145	2544	3253
30°	1733	2206	3069
35°	1290	1844	2892
40°	818	1461	2721
45°	328	1072	2566
50°	142	683	2342
55°	110	353	2045
60°	78	241	1621
65°	57	240	1108
70°	55	211	509
75°	73	223	206
80°	109	248	223
85°	217	445	336

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 90°  
 Vertical Angle: 45°  
 Luminance: 2566 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	38.7	7.3
10°-20°	99.9	18.8
20°-30°	126.2	23.8
30°-40°	115.9	21.8
40°-50°	79.0	14.9
50°-60°	42.8	8.1
60°-70°	18.2	3.4
70°-80°	6.3	1.2
80°-90°	4.0	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°	264.8	49.9
0°-40°	380.6	71.7
0°-60°	502.5	94.6
0°-90°	530.9	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	530.9	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	423	423	423	423	423	
5°	406	412	412	416	421	38
15°	326	336	354	379	395	91
25°	226	240	268	309	342	103
35°	123	139	175	230	275	76
45°	27	43	88	156	211	25
55°	7	8	24	86	136	7
65°	3	3	12	27	54	3
75°	2	6	7	6	6	2
85°	2	4	4	4	3	2
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	423.0	423.0	423.0	423.0	423.0
2.5°	416.9	421.9	419.1	420.2	421.4
5°	405.7	411.8	412.4	415.8	420.8
7.5°	390.0	397.3	401.8	410.2	418.0
10°	369.8	378.8	388.3	401.8	411.8
12.5°	348.5	358.0	372.1	391.1	404.6
15°	325.5	336.2	353.6	378.8	395.0
17.5°	301.5	313.2	334.0	363.6	384.4
20°	276.8	289.7	312.7	346.3	371.5
22.5°	251.6	265.0	290.2	328.3	358.0
25°	225.8	240.4	267.8	309.3	342.4
27.5°	201.2	214.6	244.9	290.2	326.7
30°	174.3	189.4	221.9	270.6	308.7
32.5°	149.6	164.2	198.4	250.5	291.9
35°	122.7	139.0	175.4	230.3	275.1
37.5°	97.5	113.2	153.0	211.2	258.9
40°	72.8	89.1	130.0	192.2	242.1
42.5°	48.7	66.1	108.1	172.6	226.4
45°	26.9	43.1	88.0	155.8	210.7
47.5°	14.0	23.5	68.9	139.0	193.9
50°	10.6	12.9	51.0	120.5	174.8
52.5°	9.0	9.5	34.7	102.0	155.8
55°	7.3	7.8	23.5	85.7	136.2
57.5°	5.6	6.2	16.8	70.0	114.3
60°	4.5	5.0	14.0	53.8	94.1
62.5°	3.4	3.9	13.4	39.8	74.0
65°	2.8	3.4	11.8	26.9	54.4
67.5°	2.2	3.4	10.1	17.4	36.4
70°	2.2	4.5	8.4	11.2	20.2
72.5°	2.2	5.0	7.3	7.3	7.3
75°	2.2	6.2	6.7	6.2	6.2
77.5°	2.2	5.6	5.6	5.6	5.6
80°	2.2	5.0	5.0	5.0	4.5
82.5°	2.2	4.5	5.0	5.0	3.9
85°	2.2	4.5	4.5	4.5	3.4
87.5°	1.7	4.5	4.5	4.5	2.2
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	12.93	14.21	13.30	14.52	14.83
	3H	0.00	0.00	0.00	0.00	0.00	13.29	14.41	13.67	14.75	15.11
	4H	0.00	0.00	0.00	0.00	0.00	13.25	14.30	13.66	14.65	15.04
	6H	0.00	0.13	0.00	0.50	0.90	13.23	14.19	13.64	14.56	14.96
	8H	0.00	0.75	0.27	1.14	1.55	13.22	14.13	13.65	14.52	14.93
	12H	0.63	1.50	1.06	1.88	2.31	13.22	14.09	13.65	14.47	14.90
4H	2H	0.00	0.00	0.00	0.05	0.44	12.73	13.78	13.14	14.13	14.52
	3H	0.06	0.92	0.48	1.32	1.73	13.13	13.98	13.54	14.39	14.79
	4H	1.51	2.28	1.95	2.70	3.14	13.11	13.87	13.55	14.29	14.74
	6H	2.74	3.40	3.20	3.84	4.31	13.13	13.79	13.59	14.23	14.70
	8H	3.30	3.91	3.77	4.36	4.83	13.14	13.75	13.61	14.20	14.67
	12H	3.97	4.51	4.45	4.99	5.47	13.17	13.72	13.66	14.20	14.68
8H	4H	2.58	3.20	3.05	3.65	4.12	13.01	13.63	13.48	14.07	14.54
	6H	4.17	4.68	4.68	5.17	5.66	13.06	13.56	13.56	14.06	14.54
	8H	5.01	5.46	5.53	5.97	6.47	13.12	13.57	13.64	14.08	14.58
	12H	5.97	6.37	6.49	6.87	7.44	13.23	13.63	13.75	14.13	14.70
12H	4H	2.77	3.31	3.26	3.80	4.27	12.97	13.51	13.46	14.00	14.47
	6H	4.52	4.97	5.04	5.48	5.98	13.03	13.48	13.55	14.00	14.49
	8H	5.54	5.94	6.05	6.43	7.00	13.13	13.53	13.65	14.02	14.60