

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: P1060463

Luminaire Tested: S124RDRP-S575D830-X4F0-XX-UDD-BVL-S

Issue Date: 8/7/2025

**Test Information**

Test Method: LM-79-2024  
Report Number: P1060463  
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-S575D830-X4F0-XX-UDD-BVL-S  
Description: DEFINE 4 SILVER REGRESSED DIRECT RECESSED HOUSING WITH BLACK STRAIGHT BLADE  
LOUVER WITH DIFFUSER  
CORE LIGHT ENGINE  
Light Source: 3000K CCT, 80 CRI LEDS  
Ballast/Driver: -

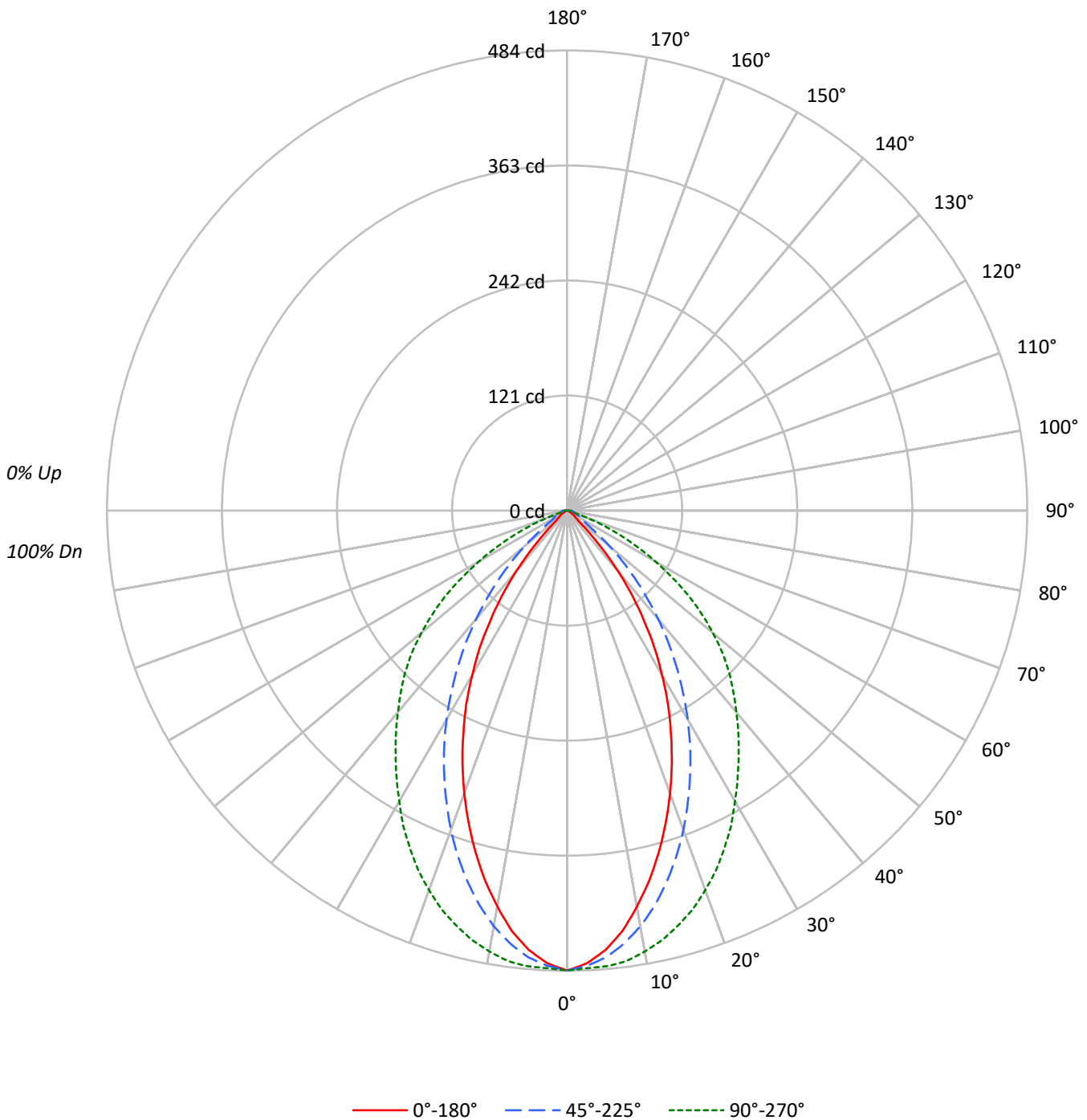
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 607.0 lumens  
Efficiency: N/A  
Efficacy: 31.0 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): 19.6  
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°	4165	4165	4165
5°	4009	4076	4159
10°	3697	3881	4118
15°	3318	3603	4026
20°	2900	3276	3892
25°	2453	2909	3719
30°	1981	2523	3510
35°	1475	2108	3306
40°	936	1670	3110
45°	374	1225	2934
50°	163	781	2678
55°	125	404	2338
60°	88	276	1853
65°	65	275	1265
70°	65	242	582
75°	87	256	233
80°	129	288	253
85°	257	504	375

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 90°  
 Vertical Angle: 45°  
 Luminance: 2934 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	44.3	7.3
10°-20°	114.2	18.8
20°-30°	144.2	23.8
30°-40°	132.5	21.8
40°-50°	90.3	14.9
50°-60°	49.0	8.1
60°-70°	20.8	3.4
70°-80°	7.2	1.2
80°-90°	4.6	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°	302.7	49.9
0°-40°	435.2	71.7
0°-60°	574.5	94.6
0°-90°	607.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	607.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	484	484	484	484	484	
5°	464	471	472	475	481	43
15°	372	384	404	433	452	104
25°	258	275	306	354	391	118
35°	140	159	200	263	314	87
45°	31	49	101	178	241	28
55°	8	9	27	98	156	7
65°	3	4	14	31	62	3
75°	3	7	8	7	7	3
85°	3	5	5	5	4	2
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	483.7	483.7	483.7	483.7	483.7
2.5°	476.6	482.4	479.2	480.5	481.7
5°	463.8	470.9	471.5	475.3	481.1
7.5°	445.9	454.2	459.3	468.9	477.9
10°	422.8	433.1	443.9	459.3	470.9
12.5°	398.5	409.4	425.4	447.2	462.5
15°	372.2	384.4	404.2	433.1	451.6
17.5°	344.7	358.1	381.8	415.8	439.5
20°	316.5	331.2	357.5	395.9	424.7
22.5°	287.6	303.0	331.8	375.4	409.4
25°	258.2	274.8	306.2	353.6	391.4
27.5°	230.0	245.4	280.0	331.8	373.5
30°	199.2	216.5	253.7	309.4	353.0
32.5°	171.0	187.7	226.8	286.4	333.8
35°	140.3	158.9	200.5	263.3	314.5
37.5°	111.5	129.4	174.9	241.5	296.0
40°	83.3	101.9	148.6	219.7	276.7
42.5°	55.7	75.6	123.6	197.3	258.8
45°	30.7	49.3	100.6	178.1	240.9
47.5°	16.0	26.9	78.8	158.9	221.7
50°	12.2	14.7	58.3	137.7	199.9
52.5°	10.2	10.9	39.7	116.6	178.1
55°	8.3	9.0	26.9	98.0	155.7
57.5°	6.4	7.0	19.2	80.1	130.7
60°	5.1	5.8	16.0	61.5	107.6
62.5°	3.8	4.5	15.4	45.5	84.6
65°	3.2	3.8	13.5	30.7	62.1
67.5°	2.6	3.8	11.5	19.9	41.6
70°	2.6	5.1	9.6	12.8	23.1
72.5°	2.6	5.8	8.3	8.3	8.3
75°	2.6	7.0	7.7	7.0	7.0
77.5°	2.6	6.4	6.4	6.4	6.4
80°	2.6	5.8	5.8	5.8	5.1
82.5°	2.6	5.1	5.8	5.8	4.5
85°	2.6	5.1	5.1	5.1	3.8
87.5°	1.9	5.1	5.1	5.1	2.6
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	13.40	14.68	13.77	14.99	15.30
	3H	0.00	0.00	0.00	0.00	0.00	13.76	14.88	14.14	15.21	15.58
	4H	0.00	0.00	0.00	0.00	0.08	13.72	14.77	14.13	15.12	15.51
	6H	0.00	0.64	0.10	1.02	1.41	13.70	14.66	14.11	15.03	15.42
	8H	0.37	1.28	0.80	1.67	2.08	13.69	14.60	14.12	14.99	15.39
	12H	1.18	2.05	1.62	2.44	2.87	13.68	14.55	14.12	14.94	15.37
4H	2H	0.00	0.15	0.00	0.50	0.88	13.20	14.25	13.61	14.60	14.99
	3H	0.52	1.37	0.93	1.78	2.18	13.60	14.45	14.01	14.86	15.26
	4H	1.96	2.73	2.40	3.15	3.59	13.58	14.34	14.01	14.76	15.21
	6H	3.22	3.88	3.69	4.33	4.80	13.60	14.25	14.06	14.70	15.17
	8H	3.80	4.41	4.27	4.86	5.33	13.61	14.22	14.08	14.67	15.14
	12H	4.48	5.02	4.96	5.50	5.98	13.64	14.18	14.13	14.67	15.14
8H	4H	3.04	3.65	3.51	4.10	4.57	13.48	14.09	13.95	14.54	15.01
	6H	4.66	5.17	5.17	5.66	6.15	13.53	14.03	14.03	14.53	15.01
	8H	5.50	5.95	6.02	6.47	6.96	13.59	14.04	14.11	14.55	15.05
	12H	6.46	6.86	6.98	7.36	7.93	13.70	14.10	14.22	14.60	15.17
12H	4H	3.23	3.77	3.72	4.26	4.73	13.44	13.98	13.93	14.47	14.94
	6H	5.01	5.47	5.54	5.98	6.47	13.50	13.95	14.02	14.46	14.96
	8H	6.03	6.43	6.55	6.93	7.50	13.60	14.00	14.12	14.50	15.07