

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: P1060493

Luminaire Tested: S124RDRP-S575D850-X4F0-XX-UDD-SVL-S

Issue Date: 8/7/2025

**Test Information**

Test Method: LM-79-2024  
Report Number: P1060493  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2406-143-77)  
Test Lab: INNOVATION CENTER  
Issue Date: 8/7/2025  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: NEO-RAY  
Catalog Number: S124RDRP-S575D850-X4F0-XX-UDD-SVL-S  
Description: DEFINE 4 SILVER REGRESSED DIRECT RECESSED HOUSING WITH SILVER STRAIGHT BLADE  
LOUVER WITH DIFFUSER  
CORE LIGHT ENGINE  
Light Source: 5000K CCT, 80 CRI LEDS  
Ballast/Driver: -

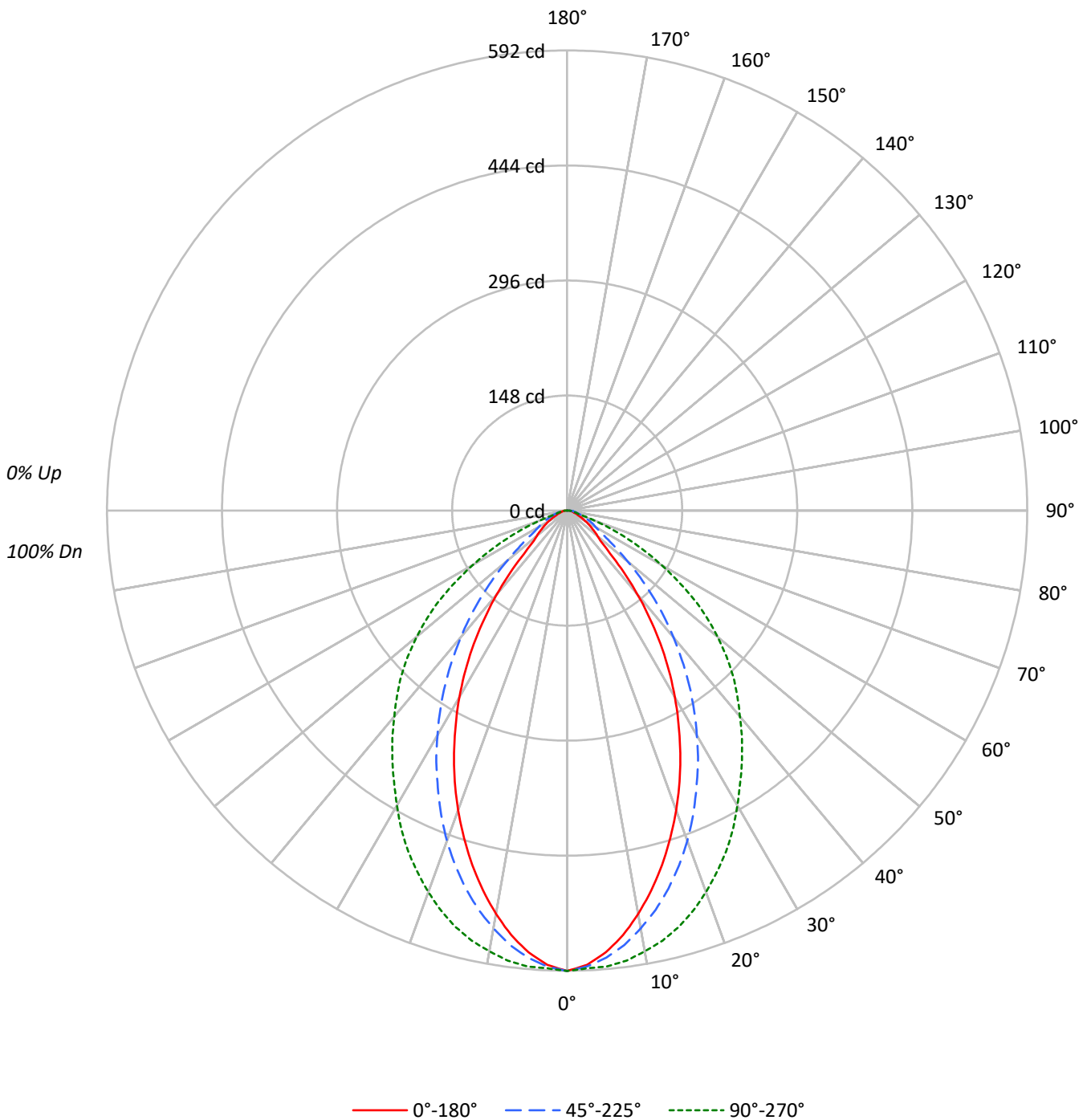
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 832.9 lumens  
Efficiency: N/A  
Efficacy: 42.5 lumens/watt  
Spacing Criteria (0/90/45): 0.83 / 1.12 / 1.01  
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	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					100			
1	111	108	105	102	109	106	103	100	101	99	97	98	96	94	94	93	91	89					89			
2	104	97	92	88	101	96	91	87	92	88	85	89	86	83	86	83	81	79					79			
3	97	88	82	77	94	87	81	76	84	79	75	81	77	73	79	75	72	70					70			
4	90	80	73	68	88	79	72	67	77	71	67	75	70	66	73	68	65	63					63			
5	84	73	66	61	82	72	65	60	70	64	60	69	63	59	67	62	59	57					57			
6	79	68	60	55	77	67	60	54	65	59	54	63	58	54	62	57	53	51					51			
7	74	62	55	50	72	62	54	49	60	54	49	59	53	49	58	52	49	47					47			
8	69	58	50	45	68	57	50	45	56	49	45	55	49	45	54	48	45	43					43			
9	65	54	46	42	64	53	46	42	52	46	41	51	45	41	50	45	41	39					39			
10	62	50	43	39	61	50	43	38	49	43	38	48	42	38	47	42	38	36					36			

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

	0°	45°	90°
0°	5100	5100	5100
5°	4931	4990	5088
10°	4606	4771	5034
15°	4206	4488	4944
20°	3757	4144	4785
25°	3272	3738	4597
30°	2757	3319	4353
35°	2202	2876	4120
40°	1584	2389	3888
45°	955	1881	3680
50°	686	1362	3383
55°	577	916	2998
60°	467	727	2415
65°	369	660	1736
70°	322	551	929
75°	299	502	452
80°	298	526	412
85°	445	741	524

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 90°  
 Vertical Angle: 45°  
 Luminance: 3680 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	54.4	6.5
10°-20°	142.5	17.1
20°-30°	184.9	22.2
30°-40°	177.7	21.3
40°-50°	131.8	15.8
50°-60°	80.8	9.7
60°-70°	39.2	4.7
70°-80°	15.0	1.8
80°-90°	6.7	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°	381.7	45.8
0°-40°	559.4	67.2
0°-60°	772.0	92.7
0°-90°	832.9	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	832.9	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	592	592	592	592	592	
5°	570	579	577	582	589	53
15°	472	485	503	534	555	132
25°	344	362	393	444	484	157
35°	210	228	274	338	392	130
45°	78	98	154	236	302	65
55°	38	40	61	138	200	34
65°	18	20	32	51	85	19
75°	9	14	15	14	14	10
85°	4	8	8	7	5	4
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	592.3	592.3	592.3	592.3	592.3
2.5°	584.8	591.6	587.1	588.6	589.3
5°	570.5	578.8	577.3	582.5	588.6
7.5°	550.9	560.7	563.7	574.2	584.0
10°	526.8	538.8	545.6	562.9	575.7
12.5°	500.4	513.2	526.0	549.4	566.7
15°	471.8	485.3	503.4	533.5	554.6
17.5°	441.6	456.7	478.5	514.7	539.6
20°	410.0	425.8	452.2	492.1	522.2
22.5°	377.6	394.1	423.5	468.0	503.4
25°	344.4	361.7	393.4	443.9	483.8
27.5°	310.5	328.6	364.7	418.2	462.0
30°	277.3	294.7	333.8	391.9	437.8
32.5°	243.4	261.5	303.7	364.7	414.5
35°	209.5	228.3	273.6	338.4	391.9
37.5°	174.8	195.2	242.7	312.7	369.3
40°	140.9	160.5	212.5	286.4	345.9
42.5°	107.8	128.9	183.9	260.0	324.0
45°	78.4	98.0	154.5	235.9	302.2
47.5°	58.8	70.8	127.4	213.3	278.1
50°	51.2	53.5	101.7	188.4	252.5
52.5°	44.5	46.0	79.1	161.3	226.8
55°	38.4	39.9	61.0	137.9	199.7
57.5°	32.4	33.9	49.0	115.3	168.8
60°	27.1	28.6	42.2	91.9	140.2
62.5°	22.6	23.4	37.7	70.1	112.3
65°	18.1	19.6	32.4	51.2	85.2
67.5°	15.1	16.6	26.4	35.4	59.5
70°	12.8	16.6	21.9	24.9	36.9
72.5°	10.6	15.1	18.1	17.3	17.3
75°	9.0	14.3	15.1	13.6	13.6
77.5°	7.5	12.8	12.1	11.3	10.6
80°	6.0	10.6	10.6	9.0	8.3
82.5°	5.3	8.3	8.3	8.3	6.8
85°	4.5	7.5	7.5	6.8	5.3
87.5°	3.0	6.0	6.8	6.0	3.8
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	5.47	6.81	5.84	7.12	7.44	14.57	15.91	14.94	16.22	16.54
	3H	6.52	7.71	6.90	8.04	8.40	15.07	16.26	15.45	16.59	16.96
	4H	7.03	8.14	7.44	8.49	8.87	15.09	16.20	15.49	16.55	16.93
	6H	7.48	8.50	7.90	8.87	9.26	15.09	16.10	15.50	16.47	16.87
	8H	7.67	8.64	8.10	9.03	9.43	15.08	16.05	15.51	16.44	16.84
	12H	7.89	8.81	8.32	9.19	9.62	15.08	16.01	15.52	16.39	16.82
4H	2H	6.57	7.67	6.97	8.02	8.41	14.46	15.57	14.86	15.92	16.30
	3H	7.84	8.75	8.25	9.15	9.55	15.04	15.95	15.45	16.35	16.75
	4H	8.54	9.35	8.98	9.77	10.22	15.09	15.90	15.52	16.32	16.76
	6H	9.17	9.87	9.64	10.32	10.79	15.14	15.84	15.60	16.29	16.75
	8H	9.42	10.07	9.89	10.52	10.99	15.16	15.81	15.63	16.26	16.73
	12H	9.70	10.27	10.18	10.76	11.23	15.19	15.77	15.68	16.25	16.73
8H	4H	8.97	9.63	9.44	10.07	10.54	15.04	15.69	15.51	16.14	16.61
	6H	9.85	10.39	10.35	10.88	11.36	15.13	15.67	15.63	16.16	16.64
	8H	10.26	10.74	10.78	11.25	11.75	15.19	15.67	15.71	16.19	16.68
	12H	10.73	11.16	11.25	11.65	12.22	15.29	15.72	15.81	16.21	16.78
12H	4H	9.02	9.59	9.50	10.08	10.55	15.01	15.59	15.50	16.07	16.54
	6H	9.96	10.45	10.48	10.96	11.45	15.11	15.59	15.63	16.11	16.60
	8H	10.48	10.91	11.00	11.40	11.97	15.22	15.64	15.73	16.14	16.71