

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: P1060490

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

Issue Date: 8/7/2025

**Test Information**

Test Method: LM-79-2024  
Report Number: P1060490  
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-S575D850-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: 5000K CCT, 80 CRI LEDS  
Ballast/Driver: -

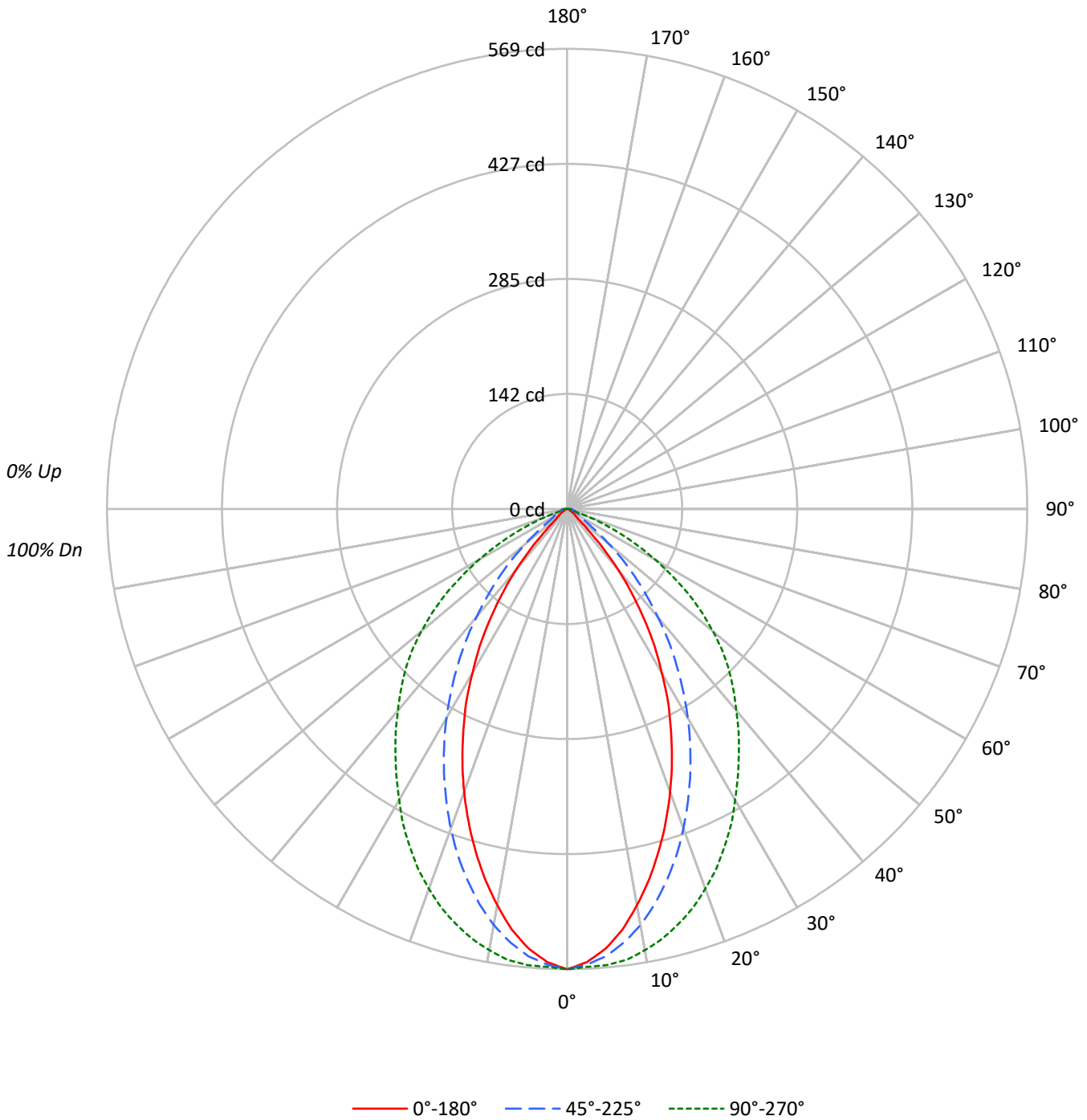
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 714.2 lumens  
Efficiency: N/A  
Efficacy: 36.4 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	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	112	108	105	103	109	106	103	101	102	100	98	98	96	95	95	93	92	90					90			
2	105	99	94	89	102	97	92	88	93	90	86	90	87	84	88	85	83	81					81			
3	98	90	84	79	96	88	83	78	86	81	77	83	79	76	81	77	74	73					73			
4	92	82	75	70	90	81	75	70	79	73	69	77	72	68	75	71	67	65					65			
5	86	76	68	63	84	75	68	63	73	67	62	71	66	62	69	65	61	59					59			
6	80	70	62	57	79	69	62	57	67	61	57	66	60	56	64	59	56	54					54			
7	76	64	57	52	74	64	57	52	62	56	52	61	56	51	60	55	51	50					50			
8	71	60	53	48	70	59	53	48	58	52	48	57	51	47	56	51	47	46					46			
9	67	56	49	44	66	55	49	44	54	48	44	53	48	44	52	47	44	42					42			
10	64	52	46	41	62	52	45	41	51	45	41	50	45	41	49	44	41	39					39			

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

	0°	45°	90°
0°	4901	4901	4901
5°	4717	4796	4893
10°	4350	4568	4844
15°	3904	4240	4737
20°	3413	3854	4579
25°	2887	3423	4375
30°	2331	2968	4129
35°	1736	2480	3891
40°	1102	1966	3660
45°	441	1441	3451
50°	192	919	3151
55°	147	476	2750
60°	103	324	2180
65°	77	322	1489
70°	76	285	682
75°	100	299	276
80°	149	337	298
85°	296	593	445

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 90°  
 Vertical Angle: 45°  
 Luminance: 3451 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	52.1	7.3
10°-20°	134.4	18.8
20°-30°	169.7	23.8
30°-40°	155.9	21.8
40°-50°	106.3	14.9
50°-60°	57.6	8.1
60°-70°	24.5	3.4
70°-80°	8.4	1.2
80°-90°	5.4	0.7
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°	356.2	49.9
0°-40°	512.0	71.7
0°-60°	675.9	94.6
0°-90°	714.2	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	714.2	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	569	569	569	569	569	
5°	546	554	555	559	566	51
15°	438	452	476	510	531	122
25°	304	323	360	416	460	139
35°	165	187	236	310	370	103
45°	36	58	118	210	283	33
55°	10	11	32	115	183	9
65°	4	4	16	36	73	4
75°	3	8	9	8	8	3
85°	3	6	6	6	4	3
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	569.1	569.1	569.1	569.1	569.1
2.5°	560.8	567.6	563.8	565.3	566.8
5°	545.7	554.0	554.8	559.3	566.1
7.5°	524.6	534.4	540.4	551.7	562.3
10°	497.5	509.5	522.4	540.4	554.0
12.5°	468.8	481.6	500.5	526.1	544.2
15°	437.9	452.3	475.6	509.5	531.4
17.5°	405.5	421.3	449.2	489.2	517.1
20°	372.4	389.7	420.6	465.8	499.7
22.5°	338.4	356.5	390.4	441.7	481.6
25°	303.8	323.4	360.3	416.1	460.5
27.5°	270.6	288.7	329.4	390.4	439.4
30°	234.4	254.8	298.5	364.1	415.3
32.5°	201.3	220.9	266.8	336.9	392.7
35°	165.1	186.9	235.9	309.8	370.1
37.5°	131.2	152.3	205.8	284.2	348.2
40°	98.0	119.8	174.9	258.5	325.6
42.5°	65.6	88.9	145.5	232.2	304.5
45°	36.2	58.0	118.3	209.5	283.4
47.5°	18.8	31.7	92.7	186.9	260.8
50°	14.3	17.3	68.6	162.1	235.2
52.5°	12.1	12.8	46.7	137.2	209.5
55°	9.8	10.6	31.7	115.3	183.2
57.5°	7.5	8.3	22.6	94.2	153.8
60°	6.0	6.8	18.8	72.4	126.6
62.5°	4.5	5.3	18.1	53.5	99.5
65°	3.8	4.5	15.8	36.2	73.1
67.5°	3.0	4.5	13.6	23.4	49.0
70°	3.0	6.0	11.3	15.1	27.1
72.5°	3.0	6.8	9.8	9.8	9.8
75°	3.0	8.3	9.0	8.3	8.3
77.5°	3.0	7.5	7.5	7.5	7.5
80°	3.0	6.8	6.8	6.8	6.0
82.5°	3.0	6.0	6.8	6.8	5.3
85°	3.0	6.0	6.0	6.0	4.5
87.5°	2.3	6.0	6.0	6.0	3.0
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	13.96	15.24	14.33	15.55	15.87
	3H	0.00	0.00	0.00	0.00	0.00	14.32	15.45	14.70	15.78	16.14
	4H	0.00	0.00	0.00	0.25	0.64	14.29	15.34	14.69	15.69	16.07
	6H	0.21	1.18	0.63	1.55	1.94	14.26	15.22	14.68	15.59	15.99
	8H	0.89	1.80	1.32	2.19	2.60	14.25	15.16	14.68	15.55	15.96
	12H	1.69	2.56	2.12	2.95	3.38	14.25	15.12	14.68	15.50	15.93
4H	2H	0.00	0.70	0.06	1.06	1.44	13.77	14.82	14.17	15.17	15.55
	3H	1.07	1.93	1.49	2.33	2.74	14.16	15.02	14.57	15.42	15.83
	4H	2.53	3.29	2.96	3.71	4.16	14.14	14.91	14.58	15.33	15.77
	6H	3.77	4.43	4.23	4.88	5.34	14.16	14.82	14.62	15.27	15.73
	8H	4.34	4.95	4.81	5.40	5.87	14.17	14.78	14.64	15.23	15.70
	12H	5.01	5.55	5.49	6.03	6.51	14.21	14.75	14.69	15.23	15.71
8H	4H	3.60	4.21	4.07	4.66	5.13	14.04	14.66	14.51	15.10	15.58
	6H	5.21	5.71	5.71	6.21	6.69	14.09	14.59	14.59	15.09	15.57
	8H	6.04	6.49	6.56	7.01	7.50	14.15	14.60	14.67	15.12	15.61
	12H	7.00	7.40	7.52	7.90	8.47	14.26	14.66	14.78	15.16	15.73
12H	4H	3.79	4.33	4.28	4.81	5.29	14.00	14.55	14.49	15.03	15.50
	6H	5.56	6.01	6.08	6.53	7.02	14.06	14.51	14.58	15.03	15.52
	8H	6.58	6.98	7.09	7.47	8.04	14.16	14.56	14.68	15.06	15.63