

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: P1060530

Luminaire Tested: S124RDRP-S575D940-X4F0-XX-UDD-SVL-W

Issue Date: 8/7/2025

**Test Information**

Test Method: LM-79-2024  
Report Number: P1060530  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2406-143-74)  
Test Lab: INNOVATION CENTER  
Issue Date: 8/7/2025  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: NEO-RAY  
Catalog Number: S124RDRP-S575D940-X4F0-XX-UDD-SVL-W  
Description: DEFINE 4 WHITE REGRESSED DIRECT RECESSED HOUSING WITH SILVER STRAIGHT BLADE  
LOUVER WITH DIFFUSER  
CORE LIGHT ENGINE  
Light Source: 4000K CCT, 90 CRI LEDS  
Ballast/Driver: -

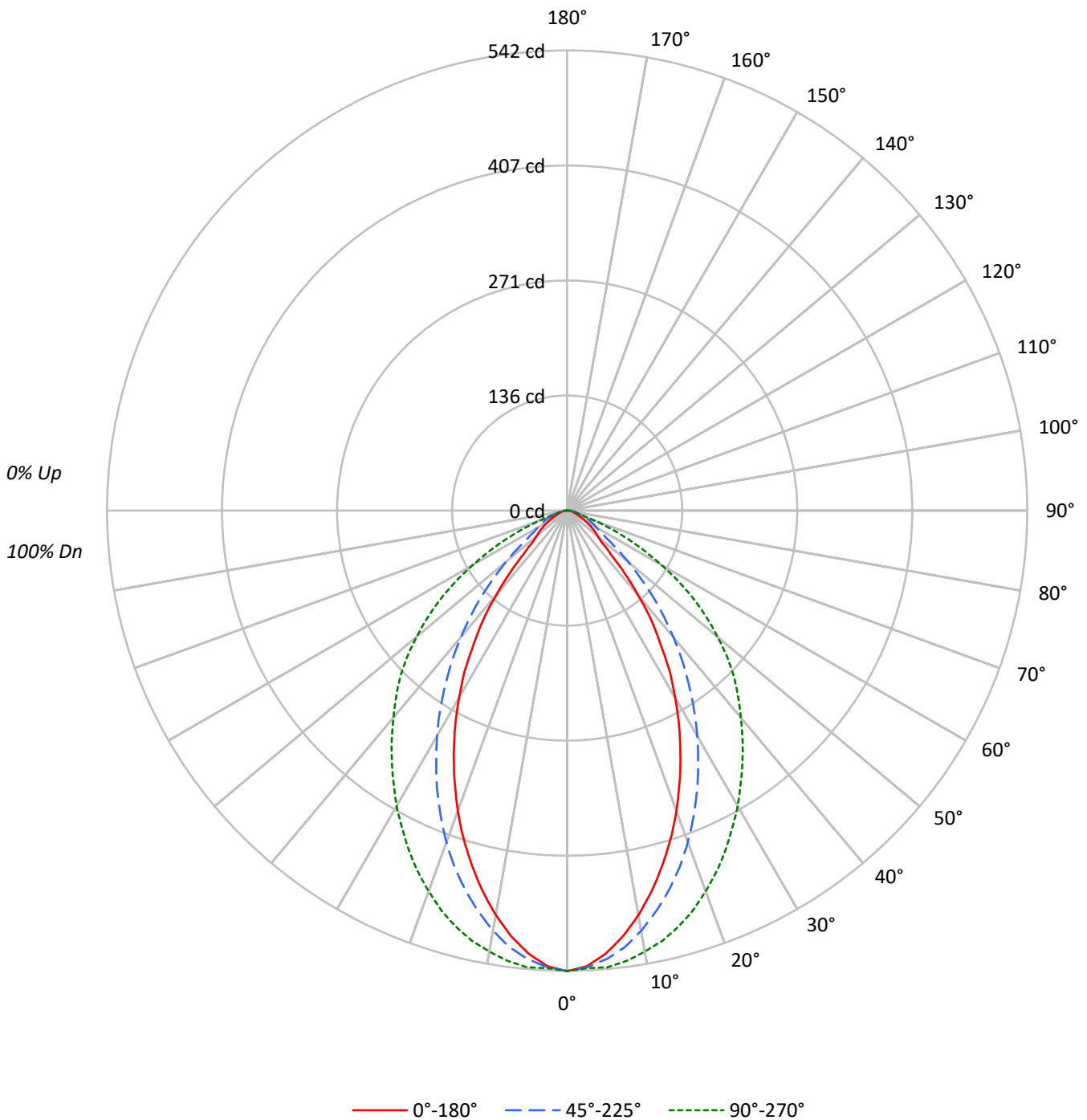
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 767.7 lumens  
Efficiency: N/A  
Efficacy: 39.2 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	104	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	76	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	66	75	70	66	73	68	65	63					63			
5	84	73	66	60	82	72	65	60	70	64	60	69	63	59	67	62	58	57					57			
6	79	67	60	54	77	67	59	54	65	59	54	63	58	53	62	57	53	51					51			
7	74	62	55	49	72	61	54	49	60	54	49	59	53	49	57	52	48	47					47			
8	69	58	50	45	68	57	50	45	56	49	45	55	49	45	53	48	44	43					43			
9	65	54	46	42	64	53	46	41	52	46	41	51	45	41	50	45	41	39					39			
10	62	50	43	38	60	49	43	38	49	42	38	48	42	38	47	42	38	36					36			

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

	0°	45°	90°
0°	4671	4671	4671
5°	4526	4584	4668
10°	4229	4393	4611
15°	3857	4128	4523
20°	3449	3810	4371
25°	3001	3443	4192
30°	2531	3050	3995
35°	2013	2625	3784
40°	1465	2186	3577
45°	885	1727	3388
50°	634	1250	3101
55°	537	847	2738
60°	439	689	2213
65°	346	617	1593
70°	290	519	838
75°	263	482	423
80°	273	481	422
85°	356	721	474

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 90°  
 Vertical Angle: 45°  
 Luminance: 3388 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	49.9	6.5
10°-20°	130.9	17.0
20°-30°	169.7	22.1
30°-40°	163.4	21.3
40°-50°	121.5	15.8
50°-60°	74.8	9.7
60°-70°	36.7	4.8
70°-80°	14.3	1.9
80°-90°	6.5	0.9
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°	350.5	45.7
0°-40°	513.9	66.9
0°-60°	710.2	92.5
0°-90°	767.7	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	767.7	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	542	542	542	542	542	
5°	524	532	530	535	540	49
15°	433	447	463	491	507	121
25°	316	333	362	408	441	144
35°	192	210	250	312	360	120
45°	73	90	142	219	278	60
55°	36	37	56	128	182	32
65°	17	18	30	48	78	17
75°	8	14	14	13	13	9
85°	4	7	7	7	5	4
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	542.4	542.4	542.4	542.4	542.4
2.5°	537.0	543.0	538.2	538.8	539.4
5°	523.6	531.5	530.3	535.1	540.0
7.5°	505.5	514.5	518.8	528.5	535.1
10°	483.6	493.9	502.4	518.2	527.3
12.5°	459.4	471.5	483.6	504.8	518.8
15°	432.7	446.7	463.0	490.9	507.3
17.5°	405.5	419.4	440.6	472.7	493.3
20°	376.4	391.5	415.8	451.5	477.0
22.5°	346.1	362.4	389.1	429.7	460.0
25°	315.8	332.7	362.4	407.9	441.2
27.5°	285.5	301.8	333.9	384.8	421.2
30°	254.5	271.5	306.7	360.0	401.8
32.5°	224.8	240.6	278.2	336.4	380.6
35°	191.5	209.7	249.7	312.1	360.0
37.5°	163.0	179.4	222.4	287.9	339.4
40°	130.3	148.5	194.5	264.2	318.2
42.5°	100.0	118.2	167.9	240.6	298.2
45°	72.7	90.3	141.8	218.8	278.2
47.5°	55.2	65.5	116.4	197.6	255.8
50°	47.3	50.3	93.3	174.5	231.5
52.5°	41.8	43.0	72.7	151.5	207.3
55°	35.8	37.0	56.4	128.5	182.4
57.5°	30.3	30.9	45.5	106.7	155.8
60°	25.5	26.1	40.0	85.5	128.5
62.5°	21.2	21.8	35.8	66.1	102.4
65°	17.0	18.2	30.3	48.5	78.2
67.5°	13.9	16.4	25.5	33.9	54.5
70°	11.5	15.8	20.6	23.6	33.3
72.5°	9.7	14.5	17.6	17.0	16.4
75°	7.9	13.9	14.5	13.3	12.7
77.5°	6.7	12.1	12.1	10.9	10.3
80°	5.5	9.7	9.7	9.7	8.5
82.5°	4.8	7.9	8.5	8.5	6.7
85°	3.6	6.7	7.3	7.3	4.8
87.5°	2.4	6.1	6.7	6.1	3.6
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	5.14	6.48	5.50	6.79	7.11	14.31	15.65	14.67	15.96	16.28
	3H	6.25	7.44	6.63	7.77	8.14	14.82	16.01	15.19	16.34	16.70
	4H	6.77	7.88	7.17	8.23	8.61	14.83	15.95	15.24	16.30	16.68
	6H	7.20	8.23	7.62	8.60	8.99	14.85	15.87	15.26	16.24	16.63
	8H	7.39	8.36	7.82	8.75	9.16	14.85	15.82	15.28	16.21	16.61
	12H	7.57	8.50	8.00	8.88	9.31	14.85	15.78	15.28	16.16	16.59
4H	2H	6.28	7.39	6.69	7.75	8.13	14.20	15.31	14.60	15.66	16.05
	3H	7.63	8.54	8.04	8.94	9.34	14.79	15.70	15.20	16.10	16.51
	4H	8.36	9.17	8.79	9.59	10.03	14.85	15.66	15.28	16.08	16.52
	6H	8.97	9.67	9.43	10.12	10.58	14.92	15.63	15.39	16.07	16.54
	8H	9.21	9.87	9.68	10.31	10.78	14.95	15.61	15.42	16.06	16.53
	12H	9.44	10.03	9.93	10.51	10.98	14.99	15.58	15.48	16.06	16.53
8H	4H	8.82	9.48	9.29	9.93	10.40	14.81	15.46	15.27	15.91	16.38
	6H	9.68	10.21	10.18	10.71	11.19	14.93	15.47	15.43	15.97	16.45
	8H	10.08	10.57	10.60	11.08	11.57	15.02	15.50	15.54	16.02	16.51
	12H	10.50	10.93	11.02	11.43	12.00	15.14	15.57	15.65	16.06	16.63
12H	4H	8.88	9.46	9.36	9.94	10.41	14.78	15.36	15.26	15.84	16.32
	6H	9.81	10.29	10.33	10.81	11.30	14.91	15.40	15.44	15.91	16.40
	8H	10.33	10.76	10.85	11.25	11.82	15.05	15.48	15.56	15.97	16.54