

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: P1060939

Luminaire Tested: S124RDRP-H575D950-X4F0-XX-UDD-BVL-B

Issue Date: 8/7/2025

**Test Information**

Test Method: LM-79-2024  
Report Number: P1060939  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2406-143-39)  
Test Lab: INNOVATION CENTER  
Issue Date: 8/7/2025  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: NEO-RAY  
Catalog Number: S124RDRP-H575D950-X4F0-XX-UDD-BVL-B  
Description: DEFINE 4 BLACK REGRESSED DIRECT RECESSED HOUSING WITH BLACK STRAIGHT BLADE LOUVER WITH DIFFUSER  
HIGH PERFORMANCE LIGHT ENGINE  
Light Source: 5000K CCT, 90 CRI LEDS  
Ballast/Driver: -

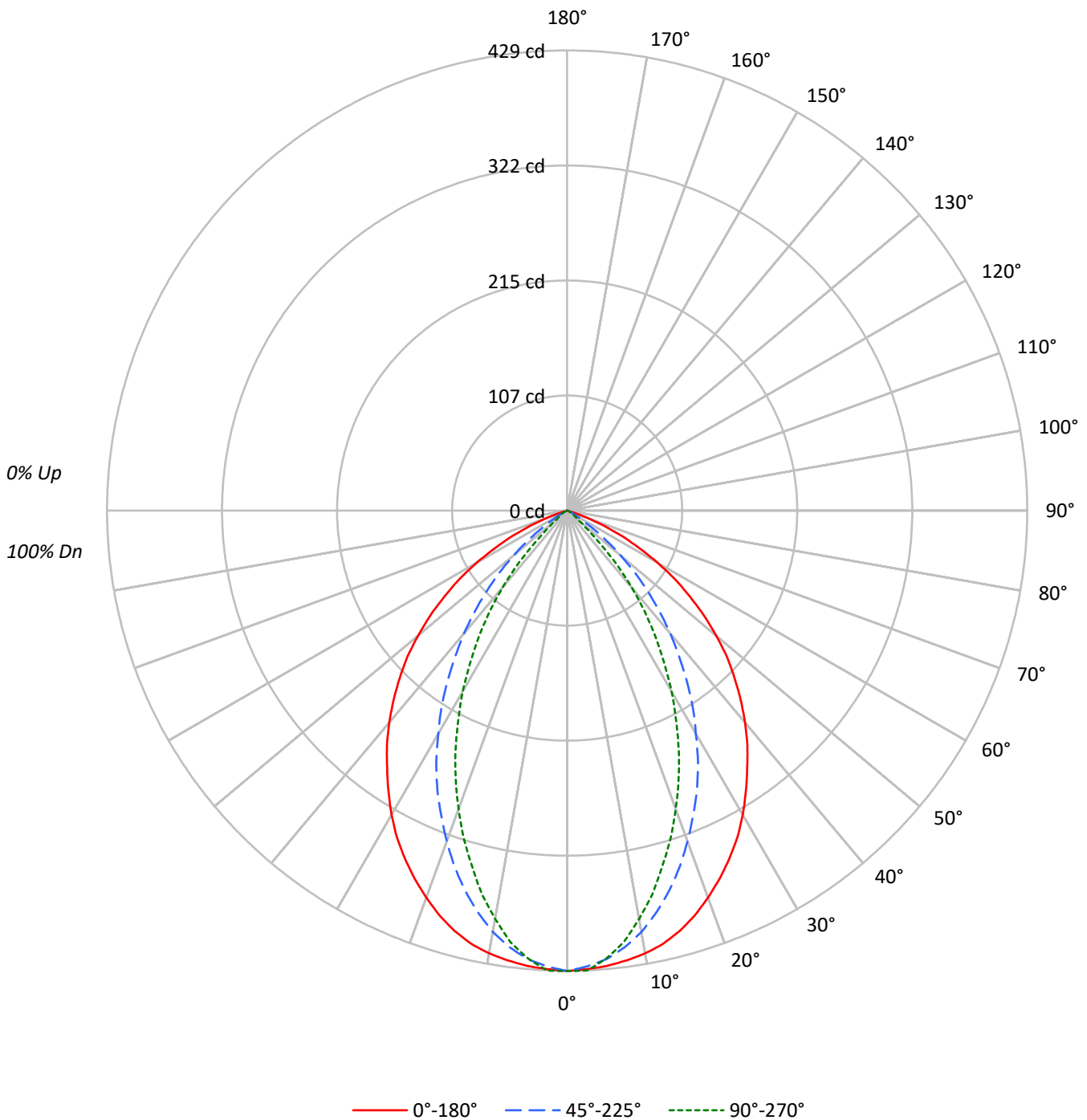
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 560.4 lumens  
Efficiency: N/A  
Efficacy: 32.2 lumens/watt  
Spacing Criteria (0/90/45): 1.15 / 0.83 / 0.98  
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 (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	109	106	103	110	107	104	102	103	101	99	99	97	96	96	94	93	91
2	105	99	95	90	103	98	93	89	94	91	87	91	88	86	88	86	84	82
3	98	91	85	80	96	89	84	79	86	82	78	84	80	77	82	78	75	74
4	92	83	76	71	90	82	76	71	79	74	70	77	73	69	75	71	68	66
5	86	76	69	64	84	75	69	64	73	67	63	71	66	62	70	65	62	60
6	81	70	63	58	79	69	63	58	68	62	57	66	61	57	65	60	56	55
7	76	65	58	53	74	64	57	53	63	57	52	61	56	52	60	55	52	50
8	71	60	53	48	70	60	53	48	58	52	48	57	52	48	56	51	47	46
9	67	56	49	44	66	56	49	44	54	48	44	54	48	44	53	48	44	42
10	64	52	46	41	63	52	45	41	51	45	41	50	45	41	49	44	41	39

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

	0°	45°	90°
0°	3696	3696	3696
5°	3683	3630	3624
10°	3665	3487	3379
15°	3616	3273	3058
20°	3518	3007	2711
25°	3400	2722	2339
30°	3255	2386	1936
35°	3077	2047	1506
40°	2900	1681	1052
45°	2689	1291	521
50°	2426	872	174
55°	2094	447	122
60°	1677	160	86
65°	1149	88	39
70°	516	48	30
75°	0	20	20
80°	0	0	0
85°	0	0	0

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 0°  
 Vertical Angle: 45°  
 Luminance: 2689 cd/sqm

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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	39.6	7.1
10°-20°	103.9	18.5
20°-30°	134.5	24.0
30°-40°	127.8	22.8
40°-50°	90.5	16.1
50°-60°	46.5	8.3
60°-70°	16.2	2.9
70°-80°	1.4	0.2
80°-90°	0.0	0.0
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°	278.0	49.6
0°-40°	405.8	72.4
0°-60°	542.7	96.9
0°-90°	560.4	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	560.4	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	429	429	429	429	429	
5°	426	427	420	420	419	40
15°	406	393	367	350	343	114
25°	358	330	286	256	246	165
35°	293	250	195	157	143	183
45°	221	170	106	61	43	170
55°	140	92	30	9	8	125
65°	56	27	4	2	2	56
75°	0	1	1	1	1	5
85°	0	0	0	0	0	0
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	429.2	429.2	429.2	429.2	429.2
2.5°	427.9	429.2	425.4	428.5	429.2
5°	426.1	426.7	419.9	419.9	419.2
7.5°	423.0	421.7	410.6	406.2	405.6
10°	419.2	414.9	398.8	389.5	386.4
12.5°	413.7	405.6	383.9	370.2	366.5
15°	405.6	393.2	367.1	349.8	343.0
17.5°	395.7	379.5	348.5	327.4	320.6
20°	383.9	363.4	328.1	304.5	295.8
22.5°	371.5	347.9	307.0	280.3	271.6
25°	357.8	329.9	286.5	256.1	246.2
27.5°	343.6	310.7	264.2	232.6	219.5
30°	327.4	291.5	240.0	207.1	194.7
32.5°	310.1	270.4	218.3	182.9	168.1
35°	292.7	249.9	194.7	156.9	143.3
37.5°	276.0	230.7	171.2	131.5	118.5
40°	258.0	209.6	149.5	108.5	93.6
42.5°	239.4	189.2	127.1	85.0	68.8
45°	220.8	169.9	106.0	60.8	42.8
47.5°	202.2	149.5	85.6	38.5	22.9
50°	181.1	129.6	65.1	20.5	13.0
52.5°	161.2	111.0	46.5	11.8	9.9
55°	139.5	91.8	29.8	8.7	8.1
57.5°	119.1	73.2	16.7	6.8	6.2
60°	97.4	56.4	9.3	5.6	5.0
62.5°	75.7	40.9	6.2	3.7	3.1
65°	56.4	27.3	4.3	2.5	1.9
67.5°	37.2	15.5	3.1	1.2	1.2
70°	20.5	7.4	1.9	1.2	1.2
72.5°	7.4	2.5	1.2	0.6	0.6
75°	0.0	0.6	0.6	0.6	0.6
77.5°	0.0	0.0	0.0	0.0	0.6
80°	0.0	0.0	0.0	0.0	0.0
82.5°	0.0	0.0	0.0	0.0	0.0
85°	0.0	0.0	0.0	0.0	0.0
87.5°	0.0	0.0	0.0	0.0	0.0
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	13.07	14.33	13.44	14.64	14.96	0.00	0.00	0.00	0.00	0.00
	3H	13.35	14.45	13.73	14.78	15.15	0.00	0.00	0.00	0.00	0.00
	4H	13.27	14.30	13.68	14.65	15.03	0.00	0.00	0.00	0.00	0.00
	6H	13.19	14.12	13.60	14.50	14.89	0.00	0.00	0.00	0.00	0.00
	8H	13.14	14.03	13.57	14.42	14.82	0.00	0.00	0.00	0.00	0.00
	12H	13.09	13.94	13.53	14.32	14.75	0.00	0.00	0.00	0.00	0.00
4H	2H	12.85	13.87	13.25	14.22	14.61	0.00	0.00	0.00	0.00	0.00
	3H	13.13	13.96	13.54	14.36	14.77	0.00	0.00	0.00	0.00	0.00
	4H	13.04	13.77	13.47	14.19	14.64	0.00	0.00	0.00	0.00	0.00
	6H	12.95	13.58	13.41	14.03	14.49	0.00	0.00	0.00	0.00	0.00
	8H	12.89	13.47	13.36	13.92	14.40	0.00	0.00	0.00	0.00	0.00
	12H	12.83	13.35	13.32	13.84	14.31	0.00	0.00	0.00	0.00	0.00
8H	4H	12.89	13.47	13.36	13.92	14.40	0.00	0.00	0.00	0.00	0.00
	6H	12.78	13.25	13.28	13.75	14.24	0.00	0.00	0.00	0.00	0.00
	8H	12.71	13.14	13.24	13.66	14.15	0.00	0.00	0.00	0.00	0.00
	12H	12.66	13.04	13.18	13.53	14.11	0.00	0.00	0.00	0.00	0.00
12H	4H	12.84	13.35	13.32	13.84	14.31	0.00	0.00	0.00	0.00	0.00
	6H	12.71	13.14	13.24	13.66	14.15	0.00	0.00	0.00	0.00	0.00
	8H	12.66	13.04	13.18	13.53	14.11	0.00	0.00	0.00	0.00	0.00