

Cooper Lighting Solutions Photometric Lab  
1121 Highway 74 South  
Peachtree City, GA 30269



Scaled data based on original data using  
LM-79-2019 Approved Method: Electrical and Photometric Measurements of Solid-  
State Lighting Products

Test Report Prepared for  
Cooper Lighting Solutions

Brand: NEO-RAY

Report Number: P1060924

Luminaire Tested: S124RDR-H575D935-X4F0-XX-UDD-SVL-B

Issue Date: 8/7/2025

**Test Information**

Test Method: LM-79-2019  
Report Number: P1060924  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2406-143-38)  
Test Lab: INNOVATION CENTER  
Issue Date: 8/7/2025  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: NEO-RAY  
Catalog Number: S124RDR-H575D935-X4F0-XX-UDD-SVL-B  
Description: DEFINE 4 BLACK REGRESSED DIRECT RECESSED HOUSING WITH SILVER STRAIGHT BLADE LOUVER WITH DIFFUSER  
HIGH PERFORMANCE LIGHT ENGINE  
Light Source: 3500K CCT, 90 CRI LEDS  
Ballast/Driver: -

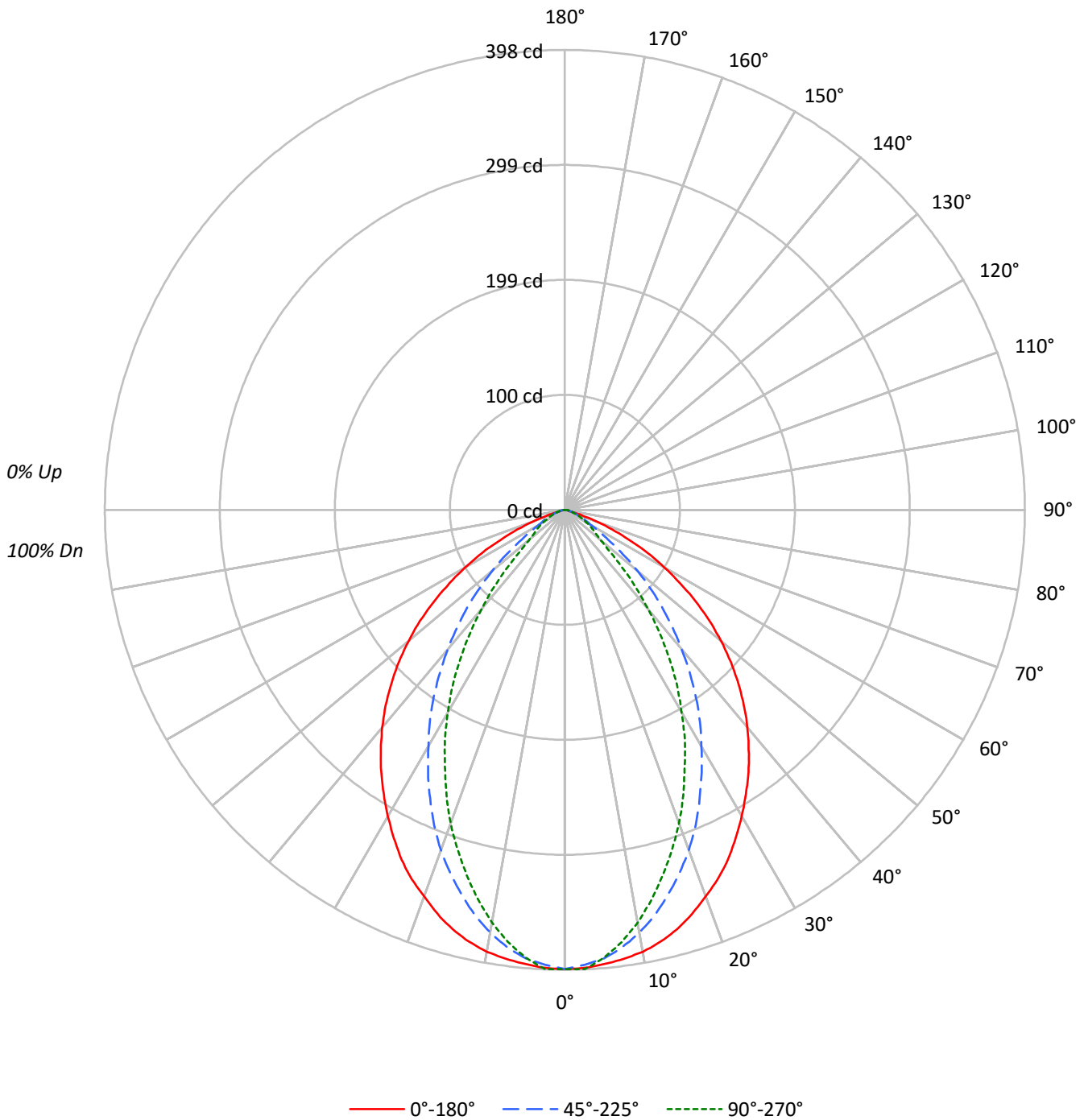
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 585.9 lumens  
Efficiency: N/A  
Efficacy: 33.7 lumens/watt  
Spacing Criteria (0/90/45): 1.16 / 0.87 / 1.02  
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 (Ain): 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	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	102	109	106	103	101	102	100	97	98	96	94	95	93	92	90				
2	104	98	93	88	102	96	91	87	93	89	85	90	86	83	87	84	82	80				
3	97	89	82	77	95	87	81	76	84	79	75	82	78	74	79	76	73	71				
4	90	81	74	68	88	79	73	68	77	71	67	75	70	66	73	69	65	63				
5	84	74	66	61	82	73	66	60	71	65	60	69	63	59	67	62	59	57				
6	79	68	60	55	77	67	60	54	65	59	54	63	58	54	62	57	53	51				
7	74	62	55	50	72	62	54	49	60	54	49	59	53	49	58	52	48	47				
8	69	58	50	45	68	57	50	45	56	49	45	55	49	45	54	48	44	43				
9	65	53	46	41	64	53	46	41	52	46	41	51	45	41	50	45	41	39				
10	62	50	43	38	60	49	43	38	48	42	38	48	42	38	47	42	38	36				

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

	0°	45°	90°
0°	3422	3422	3422
5°	3411	3368	3363
10°	3396	3249	3171
15°	3348	3074	2919
20°	3262	2872	2646
25°	3174	2621	2330
30°	3045	2349	2010
35°	2913	2077	1659
40°	2762	1768	1258
45°	2583	1446	845
50°	2362	1094	525
55°	2075	722	446
60°	1715	443	367
65°	1243	342	297
70°	677	254	227
75°	150	186	206
80°	109	139	169
85°	109	109	168

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 0°  
 Vertical Angle: 45°  
 Luminance: 2583 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	36.8	6.3
10°-20°	97.8	16.7
20°-30°	129.5	22.1
30°-40°	128.6	21.9
40°-50°	98.9	16.9
50°-60°	59.0	10.1
60°-70°	26.8	4.6
70°-80°	6.9	1.2
80°-90°	1.5	0.3
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°	264.1	45.1
0°-40°	392.7	67.0
0°-60°	550.6	94.0
0°-90°	585.9	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	585.9	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	397	397	397	397	397	
5°	395	395	390	390	389	37
15°	376	366	345	333	327	106
25°	334	310	276	253	245	153
35°	277	242	198	167	158	173
45°	212	171	119	83	69	163
55°	138	98	48	30	30	123
65°	61	36	17	15	15	61
75°	4	6	6	6	6	9
85°	1	1	1	2	2	1
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	397.4	397.4	397.4	397.4	397.4
2.5°	396.8	397.4	394.0	396.8	397.9
5°	394.6	395.2	389.6	389.6	389.0
7.5°	391.8	390.7	381.7	378.4	377.2
10°	388.4	384.5	371.6	364.9	362.7
12.5°	382.8	376.7	359.3	349.8	345.9
15°	375.6	366.0	344.8	333.0	327.4
17.5°	366.6	354.9	329.7	314.6	308.4
20°	356.0	340.3	313.4	294.4	288.8
22.5°	345.9	326.3	295.5	273.7	267.5
25°	334.1	310.1	275.9	253.0	245.2
27.5°	320.2	294.4	256.3	232.8	225.0
30°	306.2	277.6	236.2	211.6	202.1
32.5°	291.6	260.3	217.7	189.7	180.8
35°	277.1	242.4	197.6	167.4	157.8
37.5°	261.4	224.4	177.4	146.1	135.4
40°	245.7	207.1	157.3	125.4	111.9
42.5°	229.5	189.2	137.7	104.1	90.7
45°	212.1	170.7	118.7	82.8	69.4
47.5°	194.8	153.4	99.6	62.1	49.8
50°	176.3	134.9	81.7	45.3	39.2
52.5°	157.8	117.0	63.8	35.3	33.6
55°	138.2	98.5	48.1	30.2	29.7
57.5°	118.1	81.7	34.7	26.3	25.2
60°	99.6	66.0	25.7	22.4	21.3
62.5°	80.6	49.8	21.3	18.5	17.4
65°	61.0	36.4	16.8	14.6	14.6
67.5°	44.2	24.6	13.4	11.8	11.2
70°	26.9	15.1	10.1	9.5	9.0
72.5°	13.4	9.0	7.8	7.3	7.3
75°	4.5	5.6	5.6	6.2	6.2
77.5°	3.4	3.9	3.9	4.5	4.5
80°	2.2	2.8	2.8	3.4	3.4
82.5°	1.7	1.7	2.2	2.2	2.8
85°	1.1	1.1	1.1	1.7	1.7
87.5°	0.6	0.6	0.6	1.1	1.1
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	13.39	14.73	13.76	15.04	15.35	4.94	6.28	5.31	6.59	6.90
	3H	13.90	15.08	14.28	15.41	15.78	5.76	6.94	6.14	7.27	7.64
	4H	13.87	14.97	14.27	15.32	15.70	6.05	7.15	6.45	7.50	7.88
	6H	13.80	14.81	14.22	15.18	15.57	6.22	7.23	6.64	7.60	7.99
	8H	13.76	14.72	14.19	15.11	15.51	6.29	7.24	6.72	7.63	8.04
	12H	13.73	14.64	14.16	15.02	15.45	6.33	7.25	6.77	7.63	8.06
4H	2H	13.23	14.33	13.64	14.68	15.07	5.38	6.48	5.79	6.83	7.22
	3H	13.79	14.68	14.20	15.09	15.49	6.35	7.24	6.76	7.65	8.05
	4H	13.76	14.55	14.19	14.97	15.42	6.72	7.52	7.15	7.94	8.38
	6H	13.70	14.39	14.17	14.84	15.30	6.98	7.66	7.44	8.11	8.57
	8H	13.66	14.30	14.13	14.74	15.22	7.06	7.70	7.53	8.15	8.62
	12H	13.62	14.18	14.11	14.67	15.14	7.14	7.70	7.63	8.19	8.66
8H	4H	13.65	14.29	14.12	14.73	15.20	6.81	7.45	7.28	7.89	8.37
	6H	13.59	14.11	14.09	14.60	15.08	7.12	7.64	7.63	8.14	8.62
	8H	13.54	14.01	14.06	14.52	15.01	7.25	7.72	7.77	8.24	8.73
	12H	13.51	13.92	14.02	14.41	14.99	7.39	7.80	7.90	8.30	8.87
12H	4H	13.60	14.17	14.09	14.65	15.13	6.78	7.35	7.27	7.83	8.30
	6H	13.53	14.00	14.05	14.51	15.01	7.10	7.57	7.62	8.09	8.58
	8H	13.50	13.92	14.02	14.41	14.98	7.27	7.68	7.79	8.18	8.75