

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: P1060926

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

Issue Date: 8/7/2025

**Test Information**

Test Method: LM-79-2019  
Report Number: P1060926  
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: S124RDR-H575D935-X4F0-XX-UDD-SVL-W  
Description: DEFINE 4 WHITE REGRESSED DIRECT RECESSED HOUSING WITH SILVER STRAIGHT BLADE  
LOUVER WITH DIFFUSER  
HIGH PERFORMANCE LIGHT ENGINE  
Light Source: 3500K CCT, 90 CRI LEDS  
Ballast/Driver: -

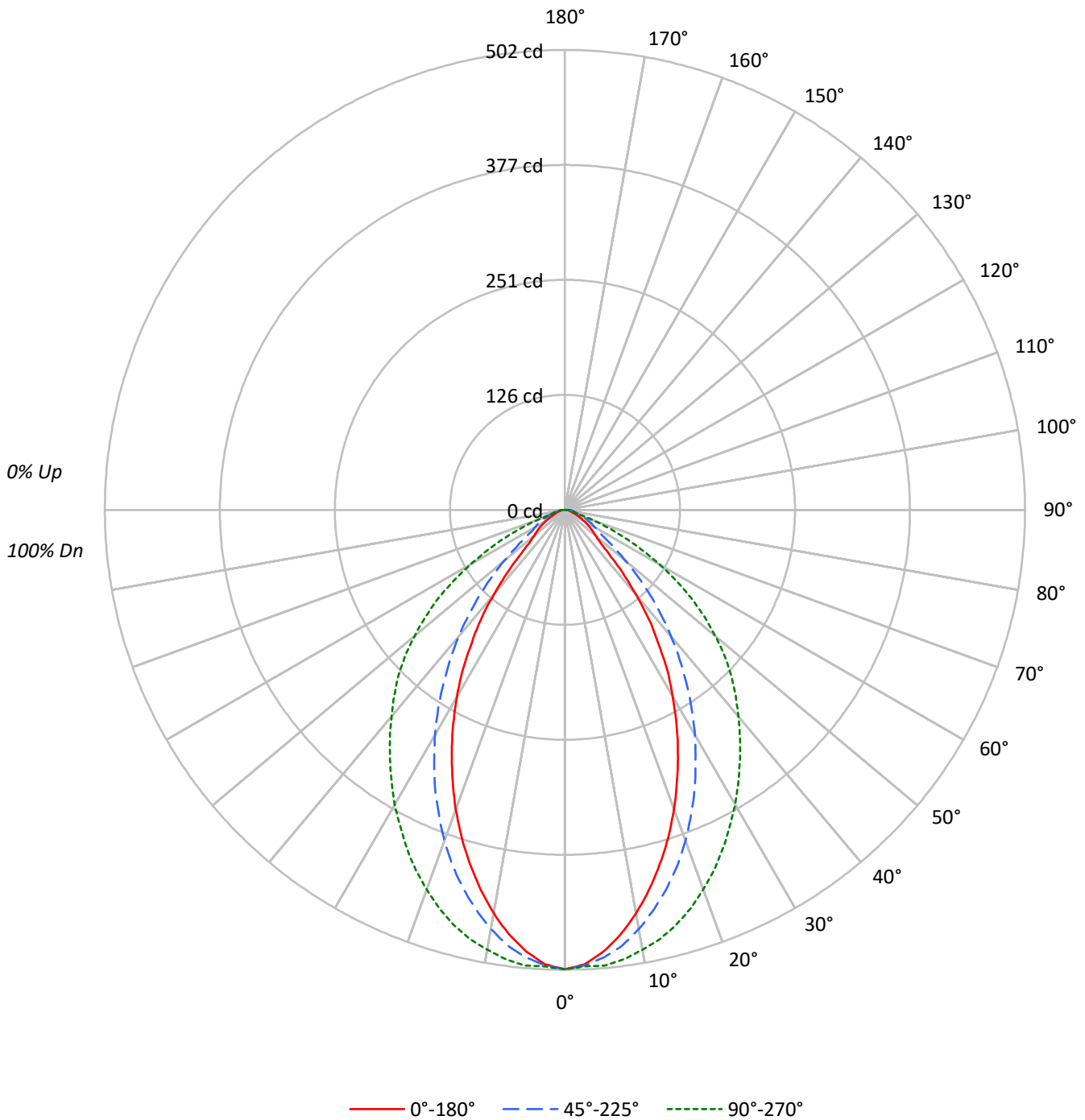
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 709.8 lumens  
Efficiency: N/A  
Efficacy: 40.8 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): 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			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	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	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°	4318	4318	4318
5°	4185	4238	4315
10°	3909	4062	4263
15°	3567	3816	4181
20°	3189	3523	4041
25°	2773	3184	3876
30°	2340	2819	3694
35°	1862	2426	3498
40°	1355	2022	3307
45°	818	1597	3132
50°	585	1156	2867
55°	497	782	2533
60°	405	637	2046
65°	320	571	1473
70°	267	481	775
75°	243	446	393
80°	248	446	387
85°	336	662	445

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 90°  
 Vertical Angle: 45°  
 Luminance: 3132 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	46.2	6.5
10°-20°	121.0	17.0
20°-30°	156.9	22.1
30°-40°	151.0	21.3
40°-50°	112.4	15.8
50°-60°	69.1	9.7
60°-70°	33.9	4.8
70°-80°	13.2	1.9
80°-90°	6.0	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°	324.0	45.7
0°-40°	475.1	66.9
0°-60°	656.6	92.5
0°-90°	709.8	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	709.8	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	502	502	502	502	502	
5°	484	491	490	495	499	45
15°	400	413	428	454	469	112
25°	292	308	335	377	408	134
35°	177	194	231	289	333	111
45°	67	84	131	202	257	56
55°	33	34	52	119	169	30
65°	16	17	28	45	72	16
75°	7	13	13	12	12	8
85°	3	6	7	7	4	3
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	501.5	501.5	501.5	501.5	501.5
2.5°	496.4	502.0	497.6	498.1	498.7
5°	484.1	491.4	490.3	494.8	499.2
7.5°	467.3	475.7	479.6	488.6	494.8
10°	447.1	456.7	464.5	479.1	487.5
12.5°	424.7	435.9	447.1	466.7	479.6
15°	400.1	412.9	428.1	453.9	469.0
17.5°	374.8	387.7	407.3	437.0	456.1
20°	348.0	362.0	384.4	417.4	441.0
22.5°	319.9	335.1	359.7	397.3	425.3
25°	291.9	307.6	335.1	377.1	407.9
27.5°	263.9	279.0	308.7	355.8	389.4
30°	235.3	251.0	283.5	332.8	371.5
32.5°	207.9	222.4	257.2	311.0	351.9
35°	177.1	193.9	230.8	288.6	332.8
37.5°	150.7	165.9	205.6	266.1	313.8
40°	120.5	137.3	179.9	244.3	294.2
42.5°	92.5	109.3	155.2	222.4	275.7
45°	67.2	83.5	131.1	202.3	257.2
47.5°	51.0	60.5	107.6	182.7	236.5
50°	43.7	46.5	86.3	161.4	214.0
52.5°	38.7	39.8	67.2	140.1	191.6
55°	33.1	34.2	52.1	118.8	168.7
57.5°	28.0	28.6	42.0	98.6	144.0
60°	23.5	24.1	37.0	79.0	118.8
62.5°	19.6	20.2	33.1	61.1	94.7
65°	15.7	16.8	28.0	44.8	72.3
67.5°	12.9	15.1	23.5	31.4	50.4
70°	10.6	14.6	19.1	21.9	30.8
72.5°	9.0	13.4	16.2	15.7	15.1
75°	7.3	12.9	13.4	12.3	11.8
77.5°	6.2	11.2	11.2	10.1	9.5
80°	5.0	9.0	9.0	9.0	7.8
82.5°	4.5	7.3	7.8	7.8	6.2
85°	3.4	6.2	6.7	6.7	4.5
87.5°	2.2	5.6	6.2	5.6	3.4
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	4.87	6.21	5.24	6.53	6.84	14.03	15.38	14.40	15.69	16.00
	3H	5.98	7.17	6.36	7.50	7.86	14.54	15.73	14.92	16.06	16.43
	4H	6.50	7.61	6.90	7.96	8.34	14.56	15.67	14.96	16.02	16.41
	6H	6.93	7.95	7.35	8.32	8.72	14.57	15.59	14.99	15.96	16.36
	8H	7.12	8.09	7.55	8.48	8.89	14.58	15.54	15.01	15.93	16.34
	12H	7.31	8.23	7.74	8.61	9.05	14.58	15.50	15.01	15.89	16.32
4H	2H	6.01	7.12	6.42	7.47	7.86	13.93	15.04	14.33	15.39	15.77
	3H	7.35	8.26	7.77	8.67	9.07	14.52	15.43	14.93	15.83	16.23
	4H	8.09	8.90	8.52	9.32	9.76	14.57	15.39	15.01	15.81	16.25
	6H	8.70	9.40	9.16	9.85	10.31	14.65	15.35	15.11	15.80	16.26
	8H	8.94	9.60	9.41	10.05	10.52	14.68	15.34	15.15	15.78	16.25
	12H	9.18	9.76	9.67	10.25	10.72	14.72	15.30	15.21	15.78	16.26
8H	4H	8.56	9.21	9.02	9.66	10.13	14.53	15.19	15.00	15.64	16.11
	6H	9.41	9.94	9.91	10.44	10.92	14.66	15.20	15.16	15.69	16.17
	8H	9.81	10.30	10.34	10.81	11.30	14.74	15.23	15.26	15.74	16.23
	12H	10.24	10.67	10.76	11.16	11.73	14.86	15.29	15.38	15.79	16.36
12H	4H	8.61	9.19	9.09	9.67	10.15	14.51	15.09	14.99	15.57	16.04
	6H	9.54	10.02	10.06	10.54	11.03	14.64	15.13	15.16	15.64	16.13
	8H	10.06	10.49	10.58	10.98	11.55	14.77	15.20	15.29	15.70	16.27