

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: P1060717

Luminaire Tested: S124RDR-H1195D835-X4F0-XX-UDD-SVL-B

Issue Date: 8/7/2025

**Test Information**

Test Method: LM-79-2019  
Report Number: P1060717  
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-H1195D835-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, 80 CRI LEDS  
Ballast/Driver: -

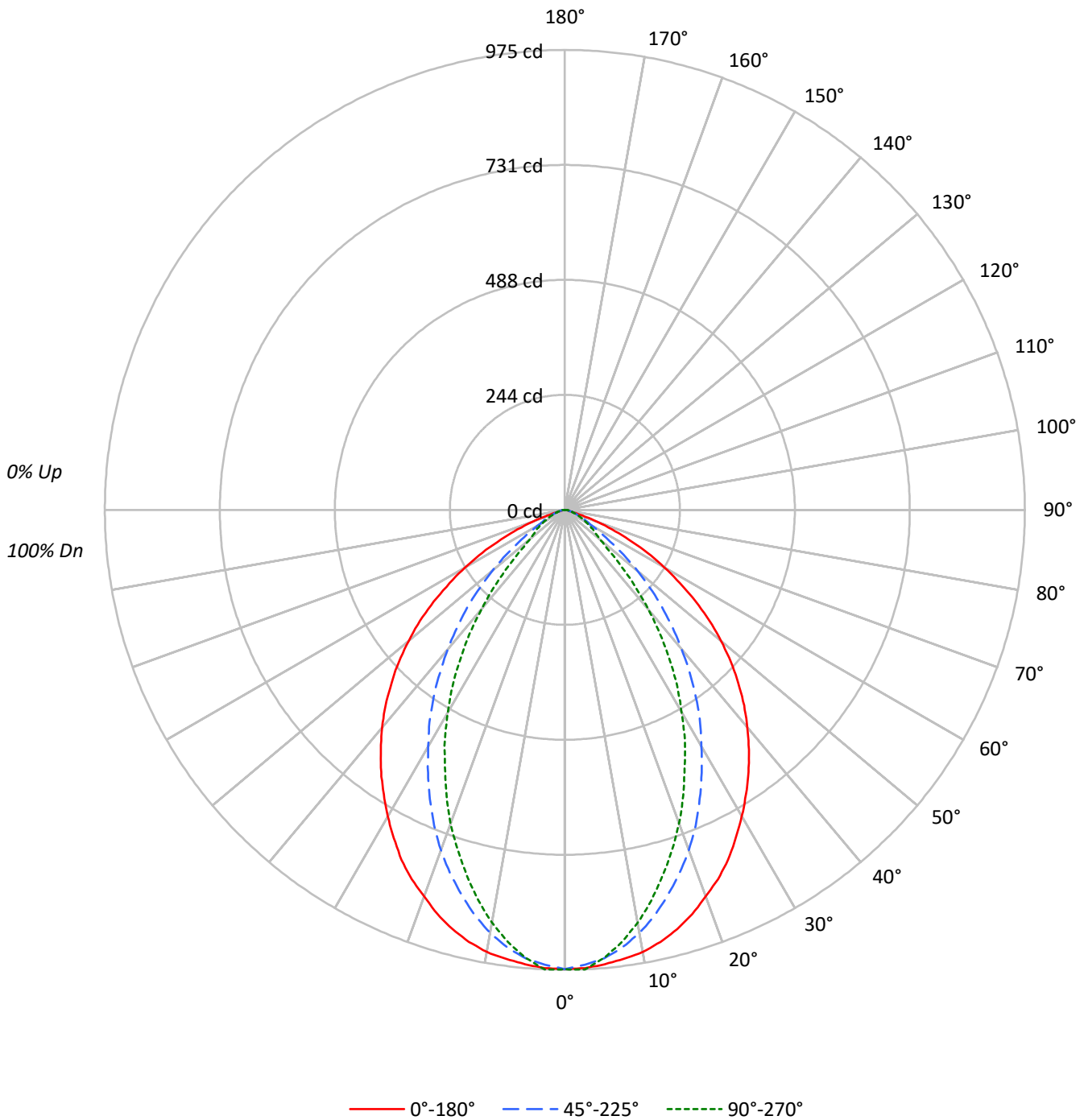
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 1435.8 lumens  
Efficiency: N/A  
Efficacy: 39.3 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): 36.5  
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°	8386	8386	8386
5°	8359	8252	8239
10°	8323	7963	7772
15°	8204	7532	7153
20°	7994	7039	6485
25°	7780	6425	5707
30°	7459	5755	4923
35°	7137	5090	4066
40°	6768	4332	3083
45°	6330	3541	2071
50°	5787	2682	1286
55°	5086	1772	1091
60°	4204	1087	897
65°	3046	837	727
70°	1657	622	551
75°	366	456	502
80°	273	342	407
85°	267	267	405

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 0°  
 Vertical Angle: 45°  
 Luminance: 6330 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	90.2	6.3
10°-20°	239.6	16.7
20°-30°	317.4	22.1
30°-40°	315.1	21.9
40°-50°	242.4	16.9
50°-60°	144.5	10.1
60°-70°	65.7	4.6
70°-80°	17.0	1.2
80°-90°	3.8	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°	647.3	45.1
0°-40°	962.4	67.0
0°-60°	1349.3	94.0
0°-90°	1435.8	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1435.8	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	974	974	974	974	974	
5°	967	968	955	955	953	92
15°	920	897	845	816	802	259
25°	819	760	676	620	601	376
35°	679	594	484	410	387	424
45°	520	418	291	203	170	400
55°	339	241	118	74	73	302
65°	150	89	41	36	36	150
75°	11	14	14	15	15	23
85°	3	3	3	4	4	3
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	973.8	973.8	973.8	973.8	973.8
2.5°	972.4	973.8	965.6	972.4	975.2
5°	967.0	968.3	954.6	954.6	953.2
7.5°	960.1	957.4	935.4	927.2	924.4
10°	951.9	942.3	910.7	894.3	888.8
12.5°	938.1	923.1	880.5	857.2	847.6
15°	920.3	897.0	844.9	816.1	802.4
17.5°	898.4	869.6	807.9	770.8	755.7
20°	872.3	833.9	768.1	721.4	707.7
22.5°	847.6	799.6	724.2	670.7	655.6
25°	818.8	759.8	676.2	619.9	600.7
27.5°	784.5	721.4	628.2	570.6	551.4
30°	750.2	680.3	578.8	518.5	495.1
32.5°	714.6	637.8	533.5	465.0	443.0
35°	678.9	593.9	484.2	410.1	386.8
37.5°	640.5	550.0	434.8	358.0	331.9
40°	602.1	507.5	385.4	307.2	274.3
42.5°	562.3	463.6	337.4	255.1	222.2
45°	519.8	418.3	290.8	203.0	170.1
47.5°	477.3	375.8	244.1	152.2	122.1
50°	432.0	330.5	200.2	111.1	96.0
52.5°	386.8	286.7	156.4	86.4	82.3
55°	338.8	241.4	118.0	74.1	72.7
57.5°	289.4	200.2	85.0	64.5	61.7
60°	244.1	161.8	63.1	54.9	52.1
62.5°	197.5	122.1	52.1	45.3	42.5
65°	149.5	89.2	41.1	35.7	35.7
67.5°	108.4	60.3	32.9	28.8	27.4
70°	65.8	37.0	24.7	23.3	21.9
72.5°	32.9	21.9	19.2	17.8	17.8
75°	11.0	13.7	13.7	15.1	15.1
77.5°	8.2	9.6	9.6	11.0	11.0
80°	5.5	6.9	6.9	8.2	8.2
82.5°	4.1	4.1	5.5	5.5	6.9
85°	2.7	2.7	2.7	4.1	4.1
87.5°	1.4	1.4	1.4	2.7	2.7
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	16.51	17.84	16.87	18.15	18.47	8.06	9.39	8.42	9.71	10.02
	3H	17.02	18.20	17.39	18.53	18.89	8.87	10.05	9.25	10.38	10.75
	4H	16.98	18.08	17.38	18.43	18.81	9.16	10.25	9.56	10.61	10.99
	6H	16.92	17.92	17.33	18.29	18.69	9.33	10.34	9.74	10.71	11.10
	8H	16.88	17.83	17.31	18.22	18.63	9.39	10.35	9.82	10.74	11.14
	12H	16.84	17.75	17.27	18.13	18.56	9.44	10.35	9.87	10.73	11.16
4H	2H	16.35	17.45	16.75	17.80	18.18	8.50	9.60	8.90	9.95	10.33
	3H	16.90	17.80	17.31	18.20	18.60	9.46	10.35	9.87	10.76	11.16
	4H	16.87	17.67	17.31	18.09	18.53	9.83	10.62	10.26	11.04	11.48
	6H	16.82	17.50	17.28	17.95	18.42	10.08	10.76	10.54	11.21	11.68
	8H	16.77	17.41	17.24	17.86	18.33	10.17	10.81	10.64	11.25	11.72
	12H	16.73	17.30	17.22	17.78	18.25	10.24	10.81	10.73	11.29	11.76
8H	4H	16.76	17.40	17.23	17.85	18.32	9.91	10.55	10.38	11.00	11.47
	6H	16.70	17.22	17.20	17.72	18.20	10.23	10.75	10.73	11.24	11.72
	8H	16.65	17.12	17.17	17.64	18.13	10.36	10.83	10.88	11.34	11.83
	12H	16.62	17.03	17.13	17.53	18.10	10.49	10.91	11.01	11.40	11.97
12H	4H	16.72	17.28	17.20	17.77	18.24	9.89	10.45	10.37	10.94	11.41
	6H	16.64	17.11	17.17	17.63	18.12	10.21	10.67	10.73	11.19	11.68
	8H	16.62	17.03	17.13	17.53	18.10	10.38	10.79	10.89	11.29	11.86