

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: P1059183

Luminaire Tested: S123RDRP-S340D835-X4F0-XX-UDD-WVL-W

Issue Date: 8/7/2025

**Test Information**

Test Method: LM-79-2024  
Report Number: P1059183  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2406-143-64)  
Test Lab: INNOVATION CENTER  
Issue Date: 8/7/2025  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: NEO-RAY  
Catalog Number: S123RDRP-S340D835-X4F0-XX-UDD-WVL-W  
Description: DEFINE 3 WHITE REGRESSED DIRECT RECESSED HOUSING WITH WHITE STRAIGHT BLADE  
LOUVER WITH DIFFUSER  
CORE LIGHT ENGINE  
Light Source: 3500K CCT, 80 CRI LEDS  
Ballast/Driver: -

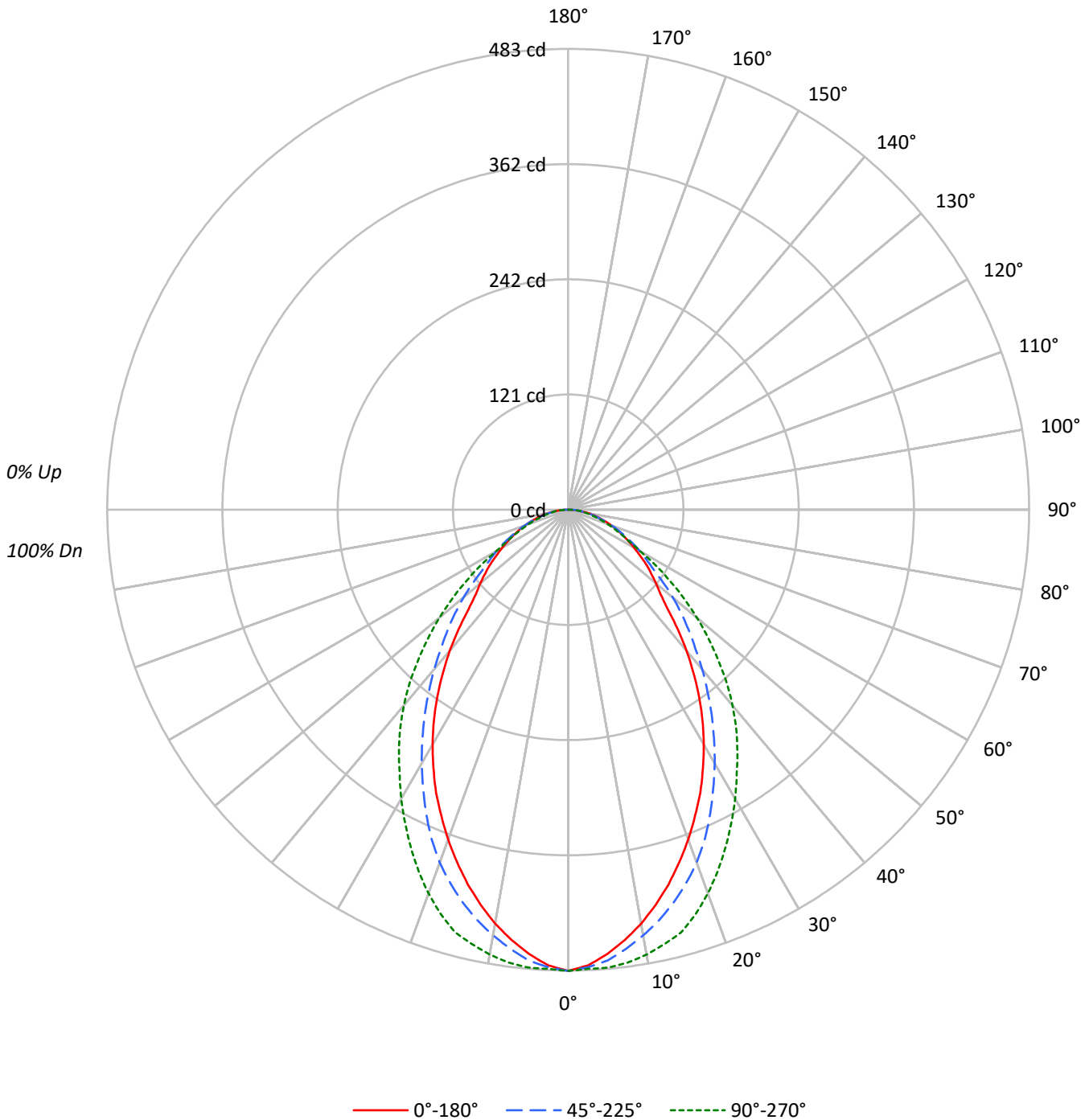
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 849.4 lumens  
Efficiency: N/A  
Efficacy: 67.9 lumens/watt  
Spacing Criteria (0/90/45): 0.94 / 1.1 / 1.09  
Luminous Opening: Rectangular (W 0.23' x L: 4' x H: 0')  
CIE Type: Direct  
  
Input Watts (W): 12.5  
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
RW	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10
RCR																	
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102
1	110	106	102	99	108	104	101	97	100	97	94	96	94	92	92	91	89
2	102	95	89	84	99	93	87	83	89	85	81	86	82	79	83	80	77
3	94	85	77	72	92	83	76	71	80	75	70	78	73	69	75	71	68
4	87	76	69	63	85	75	68	62	73	66	61	70	65	61	68	64	60
5	81	69	61	55	79	68	61	55	66	59	54	64	58	54	62	57	53
6	75	63	55	49	73	62	55	49	61	54	49	59	53	48	57	52	48
7	70	58	50	44	69	57	50	44	56	49	44	54	48	44	53	48	43
8	66	53	46	40	64	53	45	40	51	45	40	50	44	40	49	44	39
9	62	49	42	37	60	49	42	37	48	41	36	47	41	36	46	40	36
10	58	46	39	34	57	45	38	34	45	38	34	44	38	33	43	37	33

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

	0°	45°	90°
0°	5676	5676	5676
5°	5512	5590	5678
10°	5252	5401	5645
15°	4940	5184	5573
20°	4595	4917	5348
25°	4242	4559	5056
30°	3852	4163	4743
35°	3429	3757	4431
40°	2958	3348	4107
45°	2446	2964	3682
50°	2196	2614	3215
55°	2035	2231	2665
60°	1876	2031	2041
65°	1745	1837	1712
70°	1641	1672	1500
75°	1547	1493	1320
80°	1461	1352	1237
85°	1401	1509	1401

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 90°  
 Vertical Angle: 45°  
 Luminance: 3682 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	44.8	5.3
10°-20°	120.6	14.2
20°-30°	163.2	19.2
30°-40°	167.7	19.7
40°-50°	140.8	16.6
50°-60°	101.0	11.9
60°-70°	64.3	7.6
70°-80°	35.3	4.2
80°-90°	11.8	1.4
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°	328.5	38.7
0°-40°	496.2	58.4
0°-60°	738.0	86.9
0°-90°	849.4	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	849.4	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	483	483	483	483	483	
5°	468	476	474	478	482	44
15°	406	418	426	445	458	114
25°	327	340	352	371	390	150
35°	239	252	262	285	309	149
45°	147	160	178	204	222	116
55°	99	102	109	124	130	89
65°	63	67	66	62	62	63
75°	34	37	33	30	29	36
85°	10	11	11	12	10	11
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	483.4	483.4	483.4	483.4	483.4
2.5°	478.0	484.6	480.0	480.5	481.7
5°	467.6	475.9	474.2	477.5	481.7
7.5°	454.7	463.8	464.2	472.1	478.8
10°	440.5	450.1	453.0	465.1	473.4
12.5°	423.9	434.3	440.5	455.5	466.3
15°	406.4	417.6	426.4	444.7	458.4
17.5°	387.3	399.3	410.6	430.1	444.3
20°	367.7	380.6	393.5	411.8	428.0
22.5°	347.3	360.7	374.0	391.9	409.7
25°	327.4	339.9	351.9	371.1	390.2
27.5°	305.7	318.6	329.0	350.3	370.2
30°	284.1	297.0	307.0	329.0	349.8
32.5°	261.7	275.0	284.1	307.0	328.6
35°	239.2	252.1	262.1	285.4	309.1
37.5°	215.5	229.6	239.6	265.8	289.1
40°	193.0	206.3	218.4	245.8	267.9
42.5°	169.7	183.4	197.2	225.5	245.8
45°	147.3	160.2	178.5	204.2	221.7
47.5°	131.0	139.4	160.6	182.2	198.8
50°	120.2	123.5	143.1	162.2	176.0
52.5°	109.4	111.9	125.2	142.7	153.1
55°	99.4	101.5	109.0	123.5	130.2
57.5°	88.6	90.7	96.9	105.2	109.0
60°	79.9	81.5	86.5	87.8	86.9
62.5°	71.1	73.6	76.1	73.2	72.0
65°	62.8	66.6	66.1	62.4	61.6
67.5°	55.3	59.1	57.0	53.2	52.0
70°	47.8	51.6	48.7	44.9	43.7
72.5°	40.8	44.9	40.4	37.0	36.2
75°	34.1	37.4	32.9	30.4	29.1
77.5°	27.9	30.4	26.2	24.1	23.3
80°	21.6	23.3	20.0	18.7	18.3
82.5°	15.8	16.6	14.6	15.4	15.0
85°	10.4	10.8	11.2	11.6	10.4
87.5°	5.0	7.1	7.1	6.7	5.4
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	13.22	14.68	13.58	14.99	15.31	14.28	15.75	14.65	16.06	16.38
	3H	14.91	16.23	15.29	16.55	16.92	15.37	16.68	15.75	17.01	17.37
	4H	15.57	16.80	15.97	17.15	17.53	15.77	17.00	16.17	17.35	17.73
	6H	16.07	17.21	16.48	17.57	17.97	16.08	17.21	16.49	17.58	17.97
	8H	16.24	17.32	16.67	17.71	18.11	16.22	17.29	16.64	17.68	18.09
	12H	16.37	17.40	16.80	17.78	18.21	16.34	17.37	16.77	17.75	18.18
4H	2H	13.82	15.05	14.22	15.40	15.78	14.69	15.92	15.09	16.26	16.64
	3H	15.75	16.76	16.16	17.17	17.57	16.01	17.02	16.42	17.43	17.83
	4H	16.56	17.47	16.99	17.89	18.33	16.53	17.44	16.96	17.86	18.30
	6H	17.21	18.00	17.66	18.45	18.91	16.96	17.75	17.42	18.20	18.66
	8H	17.43	18.17	17.89	18.62	19.08	17.15	17.89	17.61	18.34	18.81
	12H	17.60	18.26	18.08	18.74	19.21	17.33	18.00	17.81	18.48	18.95
8H	4H	16.79	17.54	17.26	17.98	18.45	16.77	17.52	17.24	17.96	18.43
	6H	17.58	18.20	18.08	18.69	19.17	17.32	17.93	17.82	18.43	18.91
	8H	17.90	18.45	18.41	18.96	19.45	17.60	18.15	18.11	18.66	19.15
	12H	18.16	18.65	18.67	19.15	19.71	17.89	18.38	18.40	18.87	19.44
12H	4H	16.81	17.47	17.29	17.95	18.42	16.80	17.46	17.28	17.94	18.41
	6H	17.62	18.17	18.13	18.68	19.17	17.37	17.93	17.89	18.44	18.93
	8H	17.99	18.48	18.50	18.97	19.54	17.71	18.20	18.22	18.70	19.26