

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: P1059282

Luminaire Tested: S123RDRP-S560D850-X4F0-XX-UDD-WVL-W

Issue Date: 8/7/2025

**Test Information**

Test Method: LM-79-2024  
Report Number: P1059282  
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-S560D850-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: 5000K CCT, 80 CRI LEDS  
Ballast/Driver: -

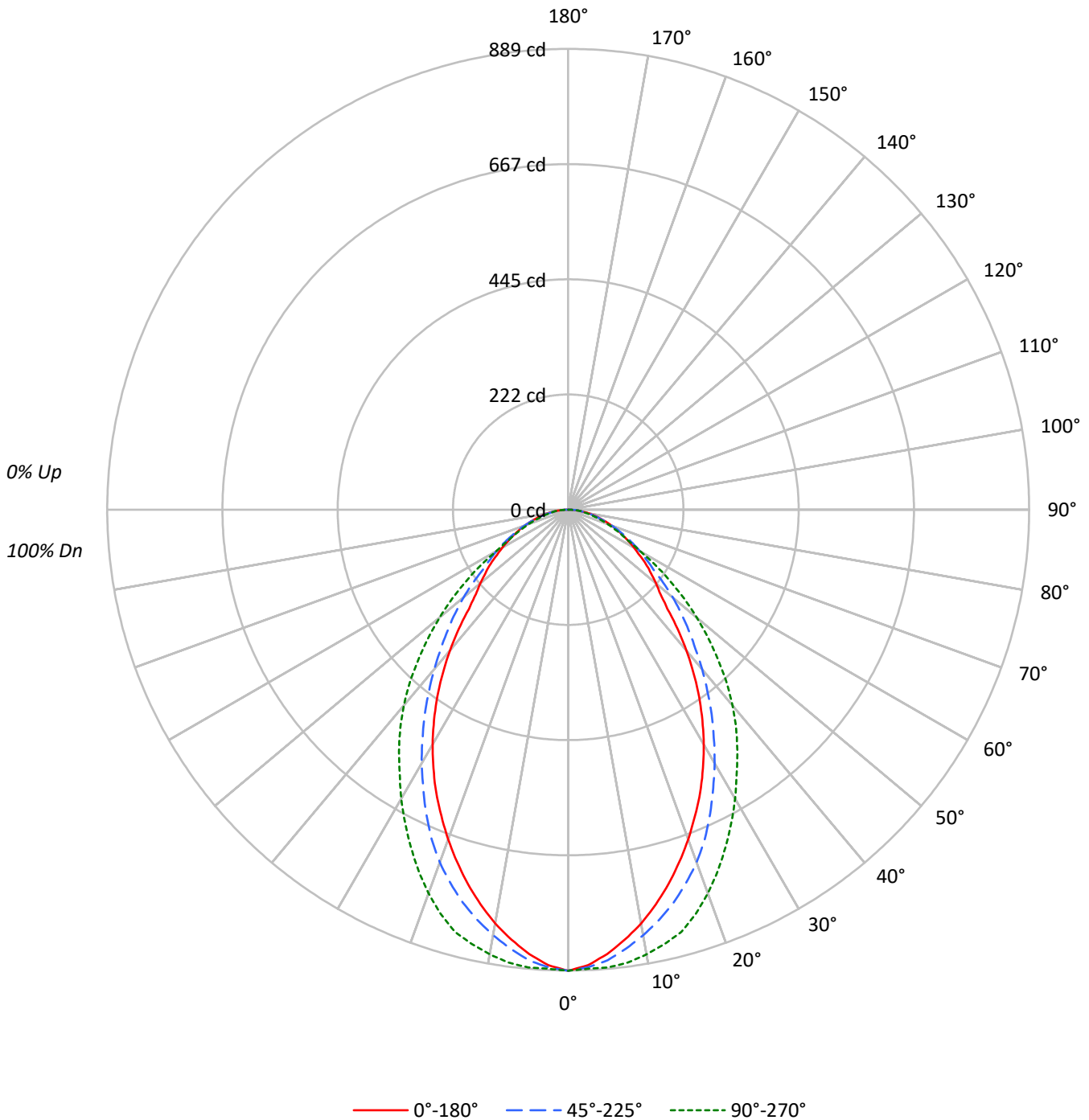
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 1562.8 lumens  
Efficiency: N/A  
Efficacy: 79.7 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): 19.6  
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	0
RCR																		
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100
1	110	106	102	99	108	104	101	97	100	97	94	96	94	92	92	91	89	87
2	102	95	89	84	99	93	87	83	89	85	81	86	82	79	83	80	77	75
3	94	85	77	72	92	83	76	71	80	75	70	78	73	69	75	71	68	66
4	87	76	69	63	85	75	68	62	73	66	61	70	65	61	68	64	60	58
5	81	69	61	55	79	68	61	55	66	59	54	64	58	54	62	57	53	51
6	75	63	55	49	73	62	55	49	61	54	49	59	53	48	57	52	48	46
7	70	58	50	44	69	57	50	44	56	49	44	54	48	44	53	48	43	41
8	66	53	46	40	64	53	45	40	51	45	40	50	44	40	49	44	39	38
9	62	49	42	37	60	49	42	37	48	41	36	47	41	36	46	40	36	34
10	58	46	39	34	57	45	38	34	45	38	34	44	38	33	43	37	33	32

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

	0°	45°	90°
0°	10444	10444	10444
5°	10141	10284	10447
10°	9664	9938	10385
15°	9091	9537	10254
20°	8455	9048	9842
25°	7805	8389	9301
30°	7089	7659	8728
35°	6309	6912	8152
40°	5443	6159	7555
45°	4499	5454	6775
50°	4041	4810	5915
55°	3744	4105	4905
60°	3452	3739	3758
65°	3212	3381	3148
70°	3021	3076	2760
75°	2849	2745	2432
80°	2691	2482	2279
85°	2573	2789	2573

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 90°  
 Vertical Angle: 45°  
 Luminance: 6775 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	82.4	5.3
10°-20°	221.9	14.2
20°-30°	300.2	19.2
30°-40°	308.5	19.7
40°-50°	259.1	16.6
50°-60°	185.8	11.9
60°-70°	118.3	7.6
70°-80°	65.0	4.2
80°-90°	21.7	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°	604.5	38.7
0°-40°	913.0	58.4
0°-60°	1357.9	86.9
0°-90°	1562.8	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1562.8	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	889	889	889	889	889	
5°	860	876	872	879	886	81
15°	748	768	784	818	844	210
25°	602	625	648	683	718	276
35°	440	464	482	525	569	274
45°	271	295	328	376	408	214
55°	183	187	200	227	240	163
65°	116	122	122	115	113	115
75°	63	69	60	56	54	67
85°	19	20	21	21	19	21
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	889.4	889.4	889.4	889.4	889.4
2.5°	879.4	891.7	883.3	884.0	886.3
5°	860.3	875.6	872.5	878.7	886.3
7.5°	836.6	853.4	854.2	868.7	881.0
10°	810.5	828.2	833.5	855.7	871.0
12.5°	779.9	799.1	810.5	838.1	858.0
15°	747.8	768.5	784.5	818.2	843.5
17.5°	712.6	734.8	755.4	791.4	817.4
20°	676.6	700.3	724.1	757.7	787.6
22.5°	639.1	663.6	688.1	721.0	753.9
25°	602.4	625.3	647.5	682.7	717.9
27.5°	562.6	586.3	605.4	644.5	681.2
30°	522.8	546.5	564.9	605.4	643.7
32.5°	481.4	505.9	522.8	564.9	604.7
35°	440.1	463.8	482.2	525.1	568.7
37.5°	396.5	422.5	440.9	489.1	531.9
40°	355.1	379.6	401.8	452.3	492.9
42.5°	312.3	337.5	362.8	414.8	452.3
45°	270.9	294.7	328.4	375.8	408.0
47.5°	241.1	256.4	295.4	335.2	365.9
50°	221.2	227.3	263.3	298.5	323.8
52.5°	201.3	205.9	230.4	262.5	281.7
55°	182.9	186.8	200.5	227.3	239.6
57.5°	163.0	166.9	178.3	193.6	200.5
60°	147.0	150.0	159.2	161.5	160.0
62.5°	130.9	135.5	140.1	134.7	132.4
65°	115.6	122.5	121.7	114.8	113.3
67.5°	101.8	108.7	104.9	98.0	95.7
70°	88.0	94.9	89.6	82.7	80.4
72.5°	75.0	82.7	74.2	68.1	66.6
75°	62.8	68.9	60.5	55.9	53.6
77.5°	51.3	55.9	48.2	44.4	42.9
80°	39.8	42.9	36.7	34.4	33.7
82.5°	29.1	30.6	26.8	28.3	27.6
85°	19.1	19.9	20.7	21.4	19.1
87.5°	9.2	13.0	13.0	12.2	10.0
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	15.34	16.80	15.70	17.11	17.43	16.40	17.87	16.77	18.18	18.49
	3H	17.03	18.34	17.41	18.67	19.04	17.49	18.80	17.87	19.13	19.49
	4H	17.69	18.92	18.09	19.26	19.64	17.89	19.12	18.29	19.47	19.85
	6H	18.19	19.32	18.60	19.69	20.08	18.20	19.34	18.61	19.70	20.10
	8H	18.36	19.44	18.79	19.83	20.23	18.34	19.41	18.76	19.80	20.21
	12H	18.49	19.52	18.92	19.90	20.33	18.46	19.49	18.89	19.87	20.30
4H	2H	15.94	17.17	16.34	17.52	17.89	16.81	18.04	17.21	18.38	18.76
	3H	17.87	18.88	18.28	19.28	19.69	18.13	19.14	18.54	19.55	19.95
	4H	18.68	19.59	19.11	20.01	20.45	18.65	19.56	19.08	19.98	20.42
	6H	19.33	20.12	19.78	20.57	21.03	19.08	19.87	19.54	20.32	20.78
	8H	19.55	20.29	20.01	20.74	21.20	19.27	20.01	19.73	20.46	20.93
	12H	19.72	20.38	20.20	20.86	21.34	19.45	20.12	19.93	20.60	21.07
8H	4H	18.91	19.66	19.38	20.10	20.57	18.89	19.64	19.36	20.08	20.55
	6H	19.70	20.32	20.20	20.81	21.29	19.44	20.05	19.94	20.55	21.03
	8H	20.02	20.57	20.53	21.08	21.57	19.72	20.27	20.23	20.78	21.27
	12H	20.28	20.77	20.79	21.27	21.83	20.01	20.50	20.52	20.99	21.56
12H	4H	18.93	19.59	19.41	20.07	20.54	18.92	19.58	19.40	20.06	20.53
	6H	19.74	20.29	20.25	20.80	21.29	19.49	20.05	20.01	20.56	21.05
	8H	20.11	20.60	20.62	21.09	21.66	19.83	20.32	20.34	20.81	21.38