

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: P1059306

Luminaire Tested: S123RDRP-S560D935-X4F0-XX-UDD-SVL-W

Issue Date: 8/7/2025

**Test Information**

Test Method: LM-79-2024  
Report Number: P1059306  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2406-143-65)  
Test Lab: INNOVATION CENTER  
Issue Date: 8/7/2025  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: NEO-RAY  
Catalog Number: S123RDRP-S560D935-X4F0-XX-UDD-SVL-W  
Description: DEFINE 3 WHITE REGRESSED DIRECT RECESSED HOUSING WITH SILVER STRAIGHT BLADE  
LOUVER WITH DIFFUSER  
CORE LIGHT ENGINE  
Light Source: 3500K CCT, 90 CRI LEDS  
Ballast/Driver: -

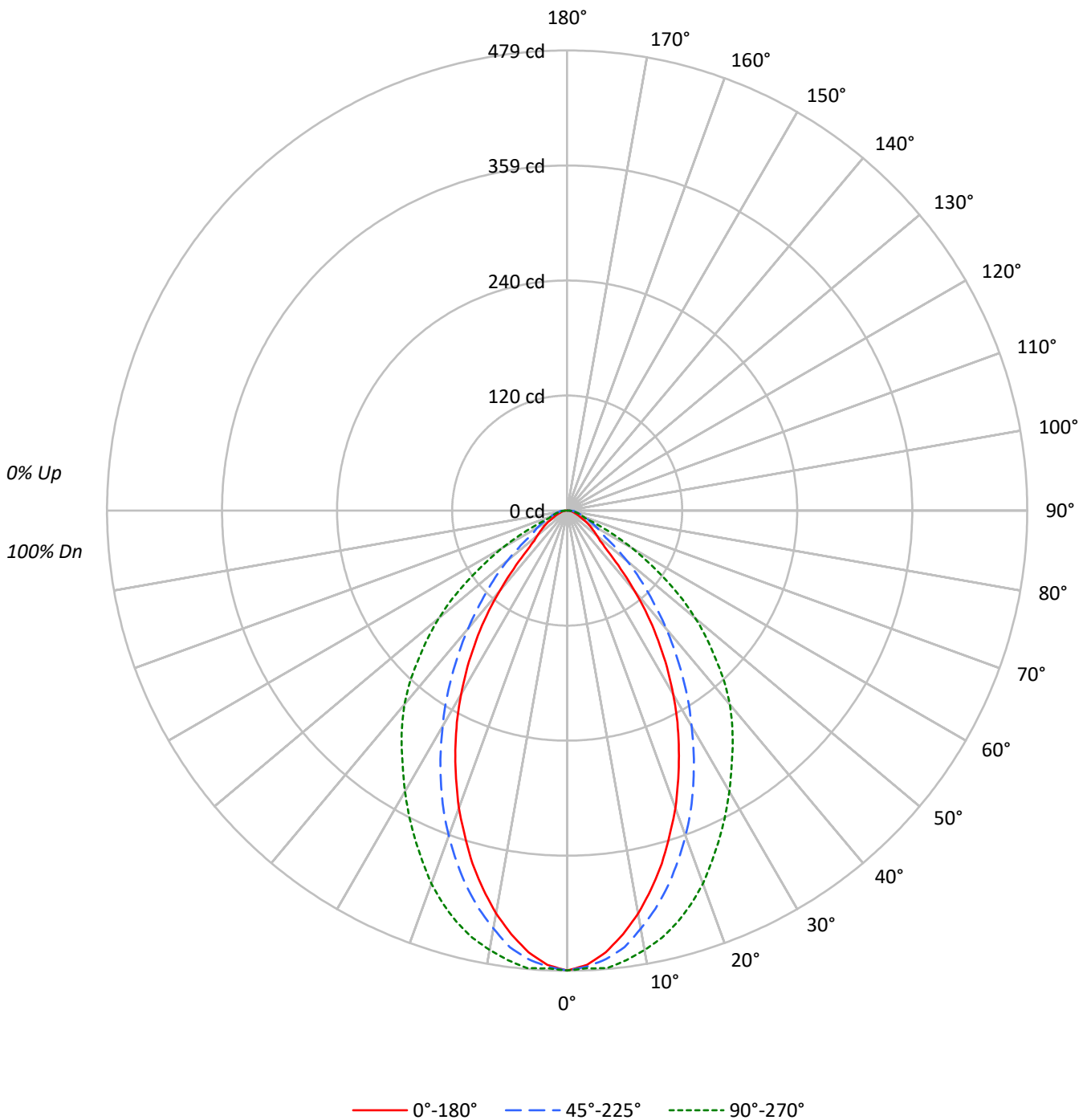
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 642.5 lumens  
Efficiency: N/A  
Efficacy: 32.8 lumens/watt  
Spacing Criteria (0/90/45): 0.83 / 1.08 / 0.98  
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 (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	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	111	108	105	102	109	106	103	100	102	99	97	98	96	94	94	93	91	89
2	104	98	92	88	102	96	91	87	92	88	85	89	86	83	86	84	81	79
3	97	89	82	77	95	87	81	77	84	79	75	82	78	74	79	76	73	71
4	90	81	74	68	88	80	73	68	77	72	67	75	70	66	73	69	66	64
5	85	74	67	61	83	73	66	61	71	65	60	69	64	60	68	63	59	58
6	79	68	61	55	78	67	60	55	66	59	55	64	59	54	63	58	54	52
7	74	63	56	51	73	62	55	50	61	55	50	60	54	50	58	53	49	48
8	70	58	51	46	69	58	51	46	57	50	46	55	50	46	54	49	45	44
9	66	54	47	43	65	54	47	43	53	47	42	52	46	42	51	46	42	40
10	62	51	44	39	61	50	44	39	49	43	39	49	43	39	48	43	39	37

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

	0°	45°	90°
0°	5621	5621	5621
5°	5439	5524	5636
10°	5076	5268	5537
15°	4626	4922	5393
20°	4116	4502	5165
25°	3567	4029	4869
30°	2991	3514	4579
35°	2370	2992	4305
40°	1677	2460	4038
45°	988	1945	3633
50°	738	1478	3182
55°	620	999	2557
60°	503	853	1815
65°	397	728	959
70°	347	632	591
75°	322	594	567
80°	325	642	561
85°	404	957	728

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 90°  
 Vertical Angle: 45°  
 Luminance: 3633 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	44.0	6.9
10°-20°	114.5	17.8
20°-30°	145.8	22.7
30°-40°	137.1	21.3
40°-50°	98.8	15.4
50°-60°	57.1	8.9
60°-70°	26.1	4.1
70°-80°	13.0	2.0
80°-90°	6.1	1.0
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°	304.3	47.4
0°-40°	441.5	68.7
0°-60°	597.3	93.0
0°-90°	642.5	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	642.5	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	479	479	479	479	479	
5°	461	469	469	473	478	43
15°	380	394	405	428	444	106
25°	275	290	311	346	376	126
35°	165	180	209	257	300	103
45°	60	74	117	176	219	50
55°	30	32	49	93	125	27
65°	14	20	26	29	34	15
75°	7	14	13	12	12	8
85°	3	6	7	6	5	3
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	478.7	478.7	478.7	478.7	478.7
2.5°	473.3	479.3	475.1	475.7	476.9
5°	461.4	469.1	468.6	473.3	478.1
7.5°	444.8	453.7	458.4	465.6	472.1
10°	425.7	435.8	441.8	454.9	464.4
12.5°	403.7	416.8	424.5	441.8	455.5
15°	380.5	394.2	404.9	427.5	443.6
17.5°	354.4	369.3	382.9	409.7	429.3
20°	329.4	343.7	360.3	389.5	413.3
22.5°	302.1	317.5	336.5	367.5	394.2
25°	275.3	289.6	311.0	345.5	375.8
27.5°	248.5	262.8	285.4	323.5	356.8
30°	220.6	235.5	259.2	301.5	337.7
32.5°	193.2	207.5	234.3	280.1	318.1
35°	165.3	179.6	208.7	256.9	300.3
37.5°	137.9	152.8	183.7	237.8	282.4
40°	109.4	125.5	160.5	218.2	263.4
42.5°	82.7	99.9	137.4	198.0	242.6
45°	59.5	74.3	117.1	176.0	218.8
47.5°	46.4	54.1	98.7	153.4	196.8
50°	40.4	41.6	80.9	132.6	174.2
52.5°	35.1	36.3	63.6	113.0	150.4
55°	30.3	31.5	48.8	92.8	124.9
57.5°	25.6	27.4	40.4	73.7	100.5
60°	21.4	23.8	36.3	56.5	77.3
62.5°	17.2	21.4	30.9	41.6	55.3
65°	14.3	20.2	26.2	29.1	34.5
67.5°	11.9	18.4	22.0	20.8	20.2
70°	10.1	16.6	18.4	16.6	17.2
72.5°	8.3	15.5	15.5	14.3	14.3
75°	7.1	13.7	13.1	12.5	12.5
77.5°	5.9	11.9	11.3	10.7	10.1
80°	4.8	9.5	9.5	8.9	8.3
82.5°	4.2	7.7	7.7	7.7	6.5
85°	3.0	6.5	7.1	6.5	5.4
87.5°	2.4	5.9	5.9	5.4	3.6
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	5.98	7.30	6.35	7.61	7.93	13.33	14.65	13.70	14.96	15.28
	3H	7.36	8.53	7.74	8.86	9.23	13.56	14.73	13.94	15.06	15.42
	4H	7.91	9.00	8.32	9.35	9.74	13.68	14.77	14.08	15.12	15.50
	6H	8.35	9.35	8.76	9.72	10.11	13.79	14.79	14.20	15.16	15.56
	8H	8.52	9.47	8.95	9.87	10.27	13.84	14.79	14.27	15.18	15.59
	12H	8.68	9.59	9.11	9.97	10.40	13.90	14.81	14.33	15.19	15.62
4H	2H	7.08	8.17	7.48	8.52	8.90	13.29	14.38	13.69	14.73	15.11
	3H	8.73	9.63	9.15	10.03	10.43	13.65	14.54	14.06	14.95	15.35
	4H	9.55	10.34	9.98	10.76	11.21	13.85	14.64	14.28	15.06	15.51
	6H	10.18	10.87	10.64	11.32	11.78	14.07	14.76	14.54	15.21	15.68
	8H	10.42	11.06	10.88	11.51	11.98	14.17	14.82	14.64	15.27	15.74
	12H	10.63	11.20	11.12	11.68	12.16	14.30	14.88	14.79	15.36	15.83
8H	4H	9.99	10.63	10.46	11.08	11.55	13.88	14.53	14.35	14.98	15.45
	6H	10.90	11.43	11.40	11.92	12.40	14.21	14.74	14.71	15.24	15.72
	8H	11.31	11.79	11.84	12.31	12.80	14.40	14.88	14.92	15.39	15.88
	12H	11.73	12.15	12.25	12.65	13.22	14.65	15.07	15.16	15.56	16.14
12H	4H	10.04	10.62	10.53	11.10	11.57	13.87	14.44	14.36	14.93	15.40
	6H	11.03	11.51	11.55	12.02	12.51	14.23	14.70	14.75	15.22	15.71
	8H	11.57	11.99	12.08	12.48	13.05	14.48	14.90	14.99	15.40	15.97