

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: P1059295

Luminaire Tested: S123RDRP-S560D930-X4F0-XX-UDD-SVL-B

Issue Date: 8/7/2025

**Test Information**

Test Method: LM-79-2024  
Report Number: P1059295  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2406-143-29)  
Test Lab: INNOVATION CENTER  
Issue Date: 8/7/2025  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: NEO-RAY  
Catalog Number: S123RDRP-S560D930-X4F0-XX-UDD-SVL-B  
Description: DEFINE 3 BLACK REGRESSED DIRECT RECESSED HOUSING WITH SILVER STRAIGHT BLADE  
LOUVER WITH DIFFUSER  
CORE LIGHT ENGINE  
Light Source: 3000K CCT, 90 CRI LEDS  
Ballast/Driver: -

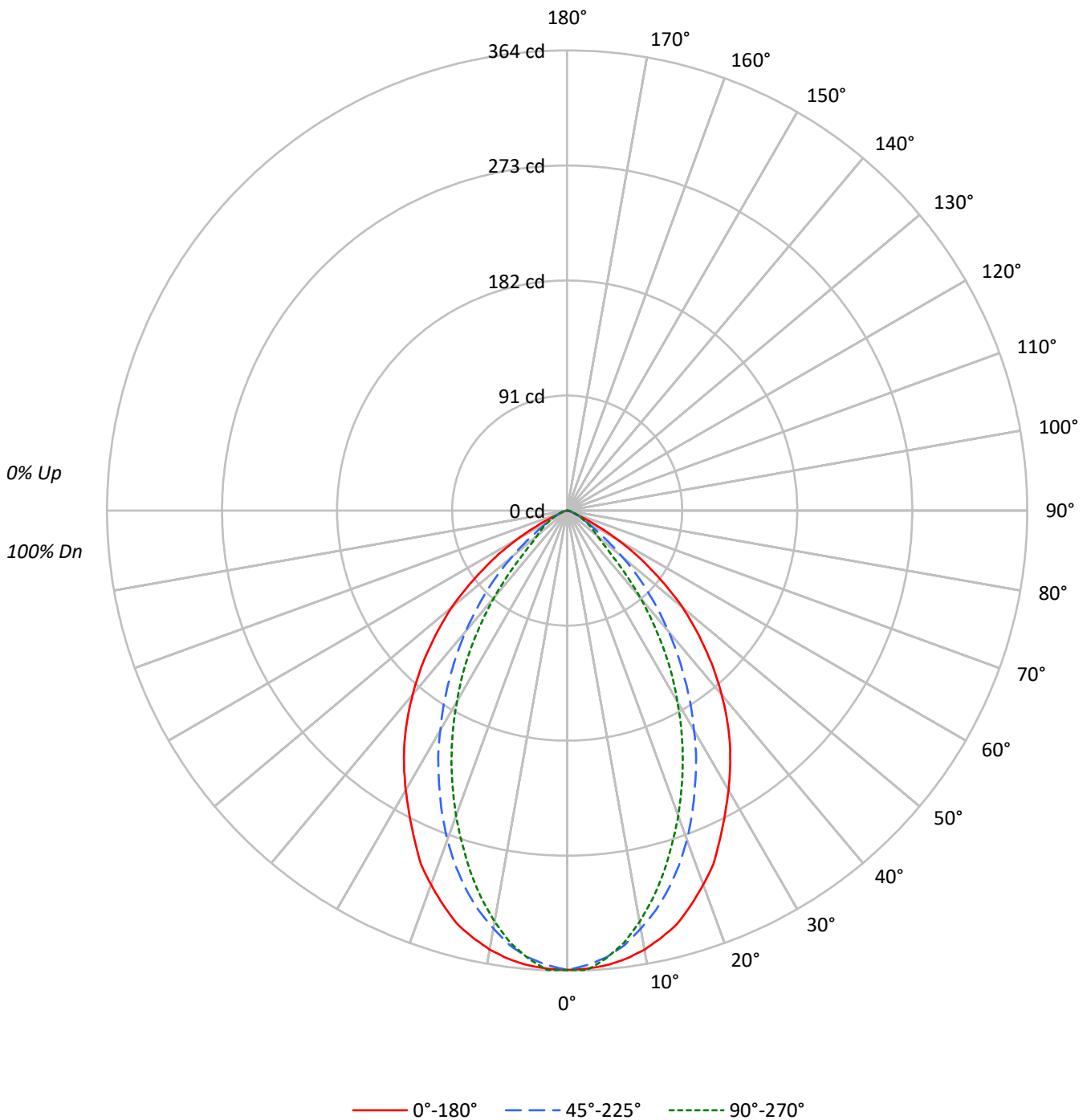
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 468.9 lumens  
Efficiency: N/A  
Efficacy: 23.9 lumens/watt  
Spacing Criteria (0/90/45): 1.08 / 0.85 / 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	112	109	106	103	110	107	104	102	103	100	98	99	97	95	95	94	93	91
2	105	99	94	90	103	97	93	89	94	90	87	91	88	85	88	86	83	82
3	98	90	84	80	96	89	83	79	86	82	78	84	80	76	81	78	75	73
4	92	83	76	71	90	82	75	70	79	74	70	77	73	69	75	71	68	66
5	86	76	69	64	84	75	68	63	73	67	63	71	66	62	70	65	62	60
6	81	70	63	58	79	69	62	58	68	62	57	66	61	57	65	60	56	55
7	76	65	58	53	74	64	57	53	63	57	52	61	56	52	60	55	52	50
8	71	60	53	48	70	60	53	48	58	52	48	57	52	48	56	51	48	46
9	67	56	49	45	66	56	49	44	55	48	44	54	48	44	53	48	44	42
10	64	52	46	41	63	52	46	41	51	45	41	50	45	41	49	44	41	39

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

	0°	45°	90°
0°	4266	4266	4266
5°	4255	4182	4189
10°	4204	4003	3936
15°	4109	3766	3596
20°	3935	3464	3211
25°	3708	3103	2805
30°	3462	2721	2363
35°	3217	2321	1902
40°	2914	1913	1380
45°	2567	1485	830
50°	2178	1038	564
55°	1658	622	473
60°	1083	397	369
65°	453	297	297
70°	154	213	230
75°	127	154	177
80°	74	115	149
85°	81	81	148

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 0°  
 Vertical Angle: 45°  
 Luminance: 2567 cd/sqm

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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	33.5	7.2
10°-20°	87.8	18.7
20°-30°	112.6	24.0
30°-40°	105.7	22.5
40°-50°	73.7	15.7
50°-60°	38.1	8.1
60°-70°	13.0	2.8
70°-80°	3.7	0.8
80°-90°	0.8	0.2
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°	233.9	49.9
0°-40°	339.6	72.4
0°-60°	451.4	96.3
0°-90°	468.9	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	468.9	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	363	363	363	363	363	
5°	361	360	355	356	355	34
15°	338	330	310	300	296	95
25°	286	268	240	223	216	132
35°	224	197	162	141	133	140
45°	155	126	89	62	50	119
55°	81	61	30	24	23	73
65°	16	14	11	10	11	19
75°	3	3	3	4	4	3
85°	1	1	1	1	1	0
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	363.3	363.3	363.3	363.3	363.3
2.5°	362.7	363.3	359.9	363.3	363.8
5°	361.0	360.4	354.8	356.5	355.4
7.5°	357.6	355.9	346.9	344.7	344.7
10°	352.6	349.2	335.7	331.8	330.1
12.5°	345.8	341.3	323.9	316.6	313.8
15°	338.0	329.5	309.8	299.7	295.8
17.5°	326.7	315.5	294.1	282.3	276.1
20°	314.9	300.8	277.2	263.2	257.0
22.5°	302.5	285.7	258.7	243.5	236.7
25°	286.2	268.2	239.5	223.2	216.5
27.5°	270.5	251.4	221.0	202.4	195.7
30°	255.3	232.8	200.7	182.8	174.3
32.5°	240.1	214.8	181.6	161.9	154.1
35°	224.4	196.8	161.9	141.1	132.7
37.5°	207.5	179.4	143.4	120.9	110.8
40°	190.1	160.8	124.8	99.5	90.0
42.5°	172.6	144.0	106.3	80.4	69.2
45°	154.6	126.5	89.4	61.9	50.0
47.5°	136.6	109.1	73.1	45.0	37.7
50°	119.2	92.8	56.8	33.2	30.9
52.5°	100.1	77.0	42.7	27.6	27.0
55°	81.0	60.7	30.4	23.6	23.1
57.5°	64.1	47.2	21.9	19.7	19.1
60°	46.1	33.7	16.9	16.3	15.7
62.5°	30.4	23.1	13.5	12.9	12.9
65°	16.3	14.1	10.7	10.1	10.7
67.5°	6.7	7.9	7.9	8.4	8.4
70°	4.5	5.1	6.2	6.7	6.7
72.5°	3.4	3.9	4.5	5.1	5.1
75°	2.8	2.8	3.4	3.9	3.9
77.5°	1.7	2.2	2.2	2.8	3.4
80°	1.1	1.7	1.7	2.2	2.2
82.5°	0.6	1.1	1.1	1.7	1.7
85°	0.6	0.6	0.6	0.6	1.1
87.5°	0.0	0.0	0.0	0.0	0.6
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	11.37	12.63	11.73	12.94	13.26	4.88	6.14	5.25	6.45	6.77
	3H	11.32	12.43	11.70	12.76	13.13	5.65	6.76	6.03	7.09	7.45
	4H	11.27	12.30	11.67	12.65	13.03	5.85	6.88	6.25	7.23	7.61
	6H	11.20	12.14	11.61	12.51	12.91	5.99	6.93	6.41	7.31	7.70
	8H	11.16	12.05	11.59	12.44	12.84	6.03	6.92	6.46	7.31	7.72
	12H	11.11	11.96	11.55	12.35	12.78	6.04	6.89	6.48	7.28	7.71
4H	2H	11.22	12.24	11.62	12.60	12.98	5.14	6.17	5.54	6.52	6.90
	3H	11.20	12.04	11.61	12.44	12.84	6.04	6.87	6.45	7.28	7.68
	4H	11.15	11.89	11.58	12.31	12.76	6.31	7.05	6.74	7.47	7.92
	6H	11.09	11.73	11.56	12.18	12.65	6.52	7.16	6.99	7.61	8.07
	8H	11.04	11.63	11.51	12.08	12.55	6.58	7.18	7.05	7.63	8.10
	12H	10.99	11.52	11.48	12.00	12.48	6.62	7.14	7.11	7.63	8.10
8H	4H	11.04	11.63	11.51	12.08	12.55	6.29	6.89	6.76	7.33	7.81
	6H	10.97	11.46	11.48	11.95	12.44	6.56	7.04	7.06	7.54	8.02
	8H	10.92	11.36	11.45	11.87	12.37	6.66	7.10	7.19	7.62	8.11
	12H	10.88	11.27	11.40	11.77	12.34	6.74	7.12	7.25	7.62	8.19
12H	4H	10.99	11.51	11.48	12.00	12.47	6.25	6.78	6.74	7.26	7.74
	6H	10.91	11.35	11.44	11.87	12.36	6.52	6.95	7.04	7.47	7.96
	8H	10.88	11.27	11.40	11.76	12.34	6.66	7.04	7.17	7.54	8.11