

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: P1059285

Luminaire Tested: S123RDRP-S560D927-X4F0-XX-UDD-BVL-W

Issue Date: 8/7/2025

**Test Information**

Test Method: LM-79-2024  
Report Number: P1059285  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2406-143-66)  
Test Lab: INNOVATION CENTER  
Issue Date: 8/7/2025  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: NEO-RAY  
Catalog Number: S123RDRP-S560D927-X4F0-XX-UDD-BVL-W  
Description: DEFINE 3 WHITE REGRESSED DIRECT RECESSED HOUSING WITH BLACK STRAIGHT BLADE  
LOUVER WITH DIFFUSER  
CORE LIGHT ENGINE  
Light Source: 2700K CCT, 90 CRI LEDS  
Ballast/Driver: -

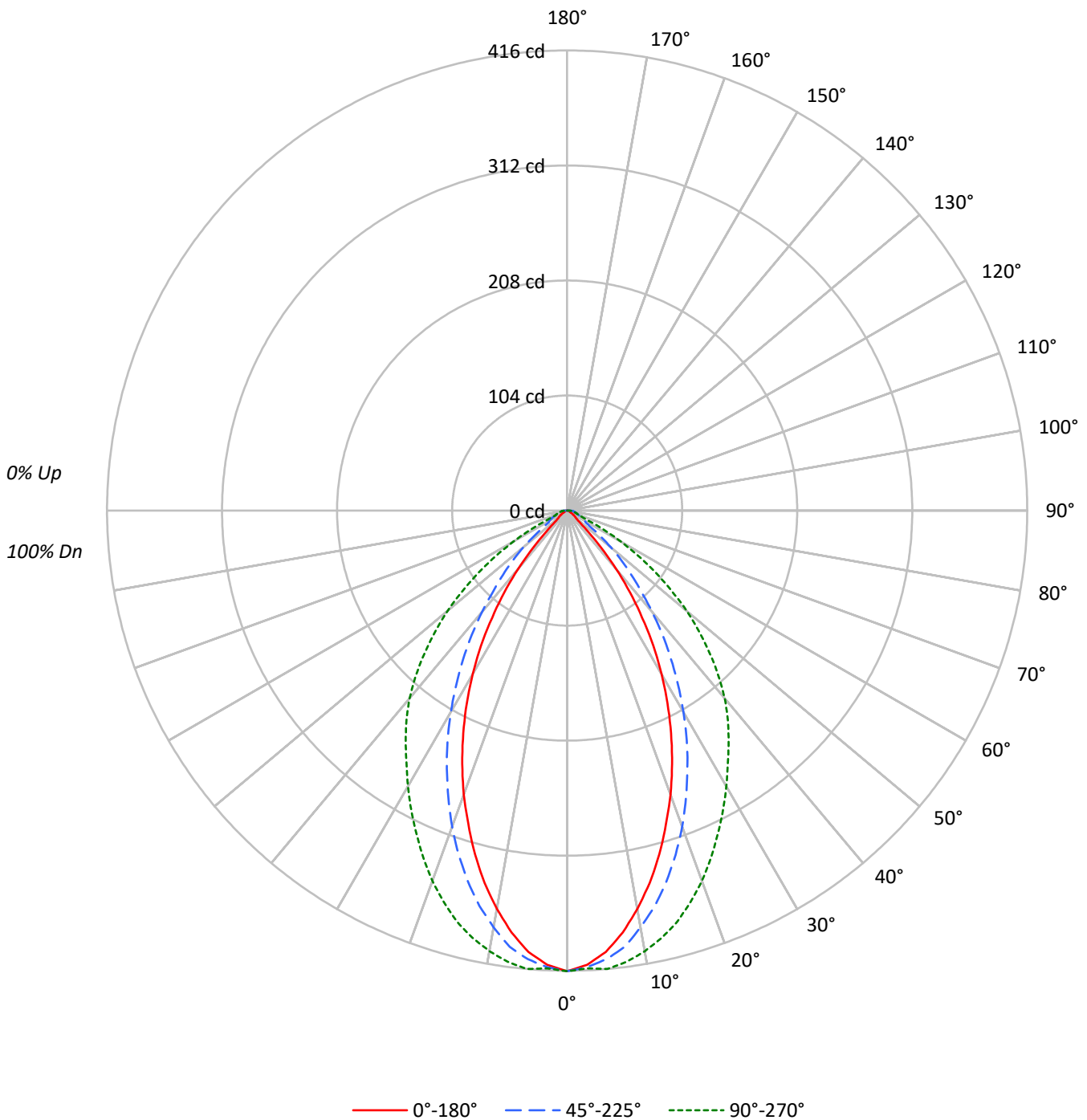
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 500.0 lumens  
Efficiency: N/A  
Efficacy: 25.5 lumens/watt  
Spacing Criteria (0/90/45): 0.79 / 1.06 / 0.94  
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	108	105	102	109	106	103	101	102	100	98	98	96	95	95	93	92	90
2	105	99	94	90	102	97	92	88	94	90	86	91	87	85	88	85	83	81
3	98	90	84	79	96	89	83	79	86	81	77	83	79	76	81	78	75	73
4	92	83	76	71	90	81	75	70	79	74	70	77	72	69	75	71	68	66
5	86	76	69	64	84	75	69	64	73	67	63	71	66	62	70	65	62	60
6	81	70	63	58	79	69	63	58	68	62	57	66	61	57	65	60	57	55
7	76	65	58	53	75	65	58	53	63	57	53	62	56	52	61	56	52	50
8	72	61	54	49	70	60	53	49	59	53	49	58	52	48	57	52	48	47
9	68	57	50	45	67	56	50	45	55	49	45	54	49	45	53	48	45	43
10	64	53	46	42	63	53	46	42	52	46	42	51	45	42	50	45	42	40

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

	0°	45°	90°
0°	4890	4890	4890
5°	4722	4799	4902
10°	4358	4561	4822
15°	3912	4217	4677
20°	3413	3801	4451
25°	2879	3332	4176
30°	2315	2849	3902
35°	1694	2345	3648
40°	1056	1829	3397
45°	400	1363	3026
50°	190	939	2579
55°	145	516	1994
60°	103	437	1310
65°	75	381	547
70°	76	357	357
75°	100	372	372
80°	149	446	406
85°	296	741	593

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 90°  
 Vertical Angle: 45°  
 Luminance: 3026 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	38.2	7.6
10°-20°	98.0	19.6
20°-30°	121.3	24.3
30°-40°	108.8	21.8
40°-50°	71.3	14.3
50°-60°	35.7	7.1
60°-70°	13.9	2.8
70°-80°	7.9	1.6
80°-90°	4.8	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°	257.6	51.5
0°-40°	366.4	73.3
0°-60°	473.4	94.7
0°-90°	500.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	500.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	416	416	416	416	416	
5°	401	407	407	412	416	37
15°	322	335	347	370	385	90
25°	222	236	257	294	322	101
35°	118	134	164	213	254	74
45°	24	39	82	141	182	23
55°	7	9	25	69	97	7
65°	3	8	14	18	20	3
75°	2	8	8	8	8	2
85°	2	6	6	6	4	2
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	416.4	416.4	416.4	416.4	416.4
2.5°	411.0	417.0	413.1	413.7	414.2
5°	400.6	407.1	407.1	411.5	415.9
7.5°	384.7	392.4	397.8	405.5	411.5
10°	365.5	374.8	382.5	396.2	404.4
12.5°	344.7	356.2	366.1	384.1	395.6
15°	321.8	334.9	346.9	369.9	384.7
17.5°	297.1	310.3	326.1	353.0	371.0
20°	273.1	286.2	304.2	334.3	356.2
22.5°	247.9	261.6	280.7	314.1	339.8
25°	222.2	235.8	257.2	293.9	322.3
27.5°	196.4	210.1	234.2	274.2	305.3
30°	170.7	184.4	210.1	252.8	287.8
32.5°	145.0	159.8	186.6	233.1	270.3
35°	118.2	134.1	163.6	212.9	254.5
37.5°	93.6	108.3	141.7	195.4	238.6
40°	68.9	84.8	119.3	178.4	221.6
42.5°	44.9	61.8	99.0	159.8	202.5
45°	24.1	38.9	82.1	140.6	182.2
47.5°	13.1	21.3	66.2	120.4	161.4
50°	10.4	12.0	51.4	102.9	141.2
52.5°	8.8	9.8	36.7	86.5	118.7
55°	7.1	8.8	25.2	68.9	97.4
57.5°	6.0	7.7	19.7	53.6	76.1
60°	4.4	6.6	18.6	39.4	55.8
62.5°	3.3	7.1	16.4	27.4	36.7
65°	2.7	8.2	13.7	18.1	19.7
67.5°	2.2	8.8	12.0	11.5	11.5
70°	2.2	8.2	10.4	9.8	10.4
72.5°	2.2	8.8	9.3	8.8	9.3
75°	2.2	8.2	8.2	8.2	8.2
77.5°	2.2	7.7	7.7	7.1	7.1
80°	2.2	6.6	6.6	6.6	6.0
82.5°	2.2	6.0	6.0	6.0	4.9
85°	2.2	5.5	5.5	5.5	4.4
87.5°	1.6	4.9	5.5	4.9	3.3
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	0.00	0.00	0.00	0.00	0.00	12.12	13.37	12.48	13.68	14.00
	3H	0.23	1.34	0.61	1.67	2.03	12.20	13.31	12.58	13.64	14.00
	4H	1.33	2.36	1.73	2.71	3.10	12.27	13.31	12.68	13.66	14.04
	6H	2.32	3.27	2.74	3.64	4.04	12.38	13.33	12.79	13.70	14.09
	8H	2.80	3.70	3.23	4.09	4.50	12.44	13.33	12.87	13.73	14.13
	12H	3.36	4.22	3.79	4.60	5.03	12.52	13.38	12.95	13.76	14.19
4H	2H	1.14	2.17	1.54	2.52	2.91	11.97	13.01	12.38	13.36	13.74
	3H	3.45	4.30	3.87	4.70	5.11	12.15	12.99	12.56	13.40	13.80
	4H	4.82	5.57	5.26	6.00	6.44	12.30	13.05	12.73	13.47	13.92
	6H	5.91	6.57	6.38	7.01	7.48	12.52	13.18	12.99	13.62	14.09
	8H	6.37	6.98	6.84	7.43	7.90	12.65	13.26	13.12	13.70	14.18
	12H	6.86	7.40	7.35	7.89	8.36	12.82	13.36	13.31	13.84	14.32
8H	4H	5.79	6.40	6.27	6.85	7.32	12.30	12.91	12.77	13.35	13.83
	6H	7.32	7.82	7.83	8.32	8.80	12.63	13.13	13.14	13.63	14.11
	8H	8.09	8.54	8.61	9.06	9.55	12.86	13.31	13.39	13.83	14.32
	12H	8.90	9.30	9.41	9.79	10.36	13.20	13.60	13.72	14.10	14.67
12H	4H	5.97	6.51	6.46	6.99	7.47	12.28	12.82	12.77	13.30	13.78
	6H	7.64	8.09	8.16	8.60	9.10	12.65	13.10	13.18	13.62	14.11
	8H	8.59	8.99	9.10	9.48	10.05	12.96	13.36	13.48	13.86	14.43