

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: P1059296

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

Issue Date: 8/7/2025

**Test Information**

Test Method: LM-79-2024  
Report Number: P1059296  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2406-143-68)  
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-S  
Description: DEFINE 3 SILVER REGRESSED DIRECT RECESSED HOUSING WITH SILVER STRAIGHT BLADE  
LOUVER WITH DIFFUSER  
CORE LIGHT ENGINE  
Light Source: 3000K CCT, 90 CRI LEDS  
Ballast/Driver: -

**Summary**

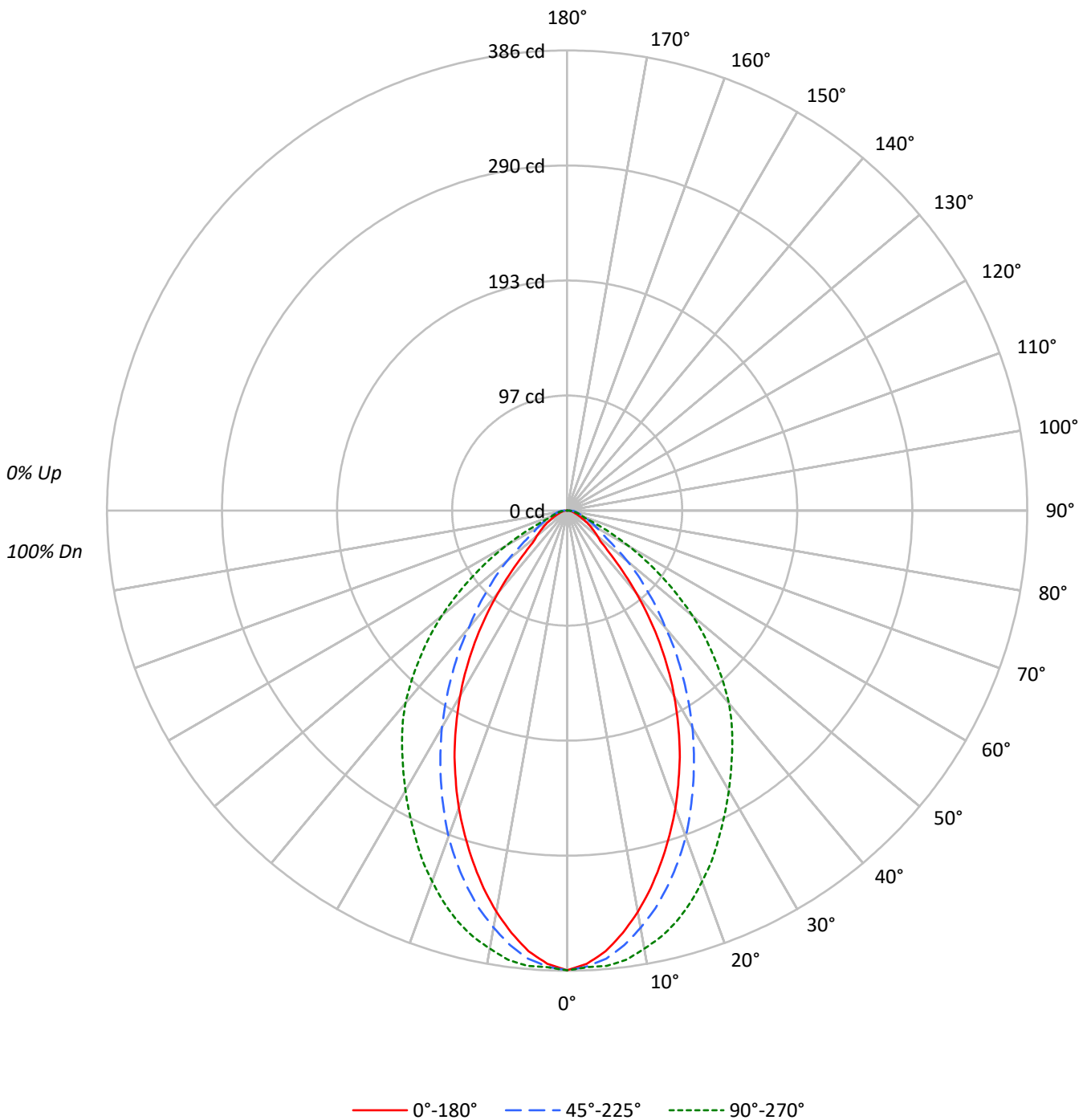
Lumens per Lamp: N/A  
Luminaire Lumens: 516.4 lumens  
Efficiency: N/A  
Efficacy: 26.3 lumens/watt  
Spacing Criteria (0/90/45): 0.83 / 1.07 / 0.98  
Luminous Opening: Rectangular (W 0.23' x L: 4' x H: 0')  
CIE Type: Direct

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	101	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	91	81	74	69	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	61	69	64	60	68	63	59	58
6	79	68	61	56	78	67	60	55	66	60	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	56	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	50	43	39	49	43	39	48	43	39	37

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

	0°	45°	90°
0°	4528	4528	4528
5°	4373	4446	4518
10°	4074	4235	4450
15°	3709	3962	4331
20°	3320	3636	4136
25°	2896	3246	3909
30°	2435	2847	3679
35°	1937	2413	3462
40°	1381	1967	3236
45°	822	1579	2898
50°	606	1204	2510
55°	508	819	1994
60°	411	674	1402
65°	328	578	750
70°	271	501	463
75°	254	485	436
80°	264	534	419
85°	377	754	525

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 90°  
 Vertical Angle: 45°  
 Luminance: 2898 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	35.4	6.9
10°-20°	92.0	17.8
20°-30°	117.4	22.7
30°-40°	110.4	21.4
40°-50°	79.3	15.4
50°-60°	45.5	8.8
60°-70°	20.8	4.0
70°-80°	10.5	2.0
80°-90°	5.1	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°	244.8	47.4
0°-40°	355.2	68.8
0°-60°	480.1	93.0
0°-90°	516.4	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	516.4	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	386	386	386	386	386	
5°	371	378	377	380	383	34
15°	305	316	326	343	356	85
25°	224	234	250	278	302	102
35°	135	145	168	207	242	84
45°	50	60	95	140	174	41
55°	25	25	40	74	97	22
65°	12	16	21	23	27	12
75°	6	11	11	10	10	6
85°	3	6	6	5	4	3
90°	0	0	0	0	0	

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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	385.6	385.6	385.6	385.6	385.6
2.5°	380.5	386.2	382.8	382.8	383.3
5°	371.0	378.3	377.2	380.0	383.3
7.5°	357.4	365.3	367.6	374.3	380.0
10°	341.7	350.7	355.2	365.9	373.2
12.5°	324.2	334.4	341.7	355.2	365.9
15°	305.1	315.8	325.9	343.4	356.3
17.5°	285.4	296.1	309.0	329.3	344.5
20°	265.7	276.4	291.0	312.4	331.0
22.5°	244.3	255.0	270.8	295.0	317.5
25°	223.5	233.6	250.5	277.5	301.7
27.5°	201.5	211.7	230.2	259.5	286.5
30°	179.6	189.7	210.0	241.5	271.3
32.5°	157.6	167.2	189.1	224.0	256.1
35°	135.1	144.7	168.3	206.6	241.5
37.5°	112.0	121.6	149.2	190.8	226.9
40°	90.1	100.8	128.3	175.1	211.1
42.5°	68.7	79.9	111.5	158.2	193.1
45°	49.5	60.2	95.1	140.2	174.5
47.5°	37.7	43.3	80.5	122.2	156.5
50°	33.2	33.8	65.9	105.8	137.4
52.5°	28.7	29.3	51.2	90.1	117.1
55°	24.8	25.3	40.0	73.7	97.4
57.5°	20.8	22.0	32.6	58.5	78.2
60°	17.5	19.7	28.7	44.5	59.7
62.5°	14.1	18.0	24.8	32.6	42.8
65°	11.8	16.3	20.8	23.1	27.0
67.5°	9.6	15.2	17.5	16.3	16.3
70°	7.9	13.5	14.6	13.5	13.5
72.5°	6.8	12.9	12.4	11.3	11.3
75°	5.6	11.3	10.7	9.6	9.6
77.5°	5.1	9.6	9.0	8.4	7.9
80°	3.9	7.9	7.9	7.3	6.2
82.5°	3.4	6.8	6.8	6.2	5.1
85°	2.8	5.6	5.6	5.1	3.9
87.5°	2.3	5.1	5.1	4.5	2.8
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	5.24	6.56	5.61	6.87	7.19	12.45	13.77	12.82	14.08	14.40
	3H	6.64	7.81	7.02	8.14	8.50	12.69	13.85	13.07	14.18	14.55
	4H	7.20	8.29	7.60	8.64	9.02	12.79	13.88	13.20	14.23	14.62
	6H	7.66	8.66	8.08	9.03	9.43	12.90	13.90	13.32	14.27	14.67
	8H	7.85	8.80	8.28	9.19	9.59	12.95	13.90	13.38	14.29	14.70
	12H	8.04	8.95	8.47	9.33	9.76	13.00	13.91	13.43	14.29	14.72
4H	2H	6.31	7.40	6.71	7.75	8.13	12.41	13.50	12.81	13.85	14.23
	3H	8.00	8.89	8.41	9.29	9.70	12.78	13.67	13.19	14.08	14.48
	4H	8.83	9.63	9.27	10.05	10.49	12.96	13.76	13.40	14.18	14.63
	6H	9.49	10.18	9.96	10.63	11.10	13.19	13.88	13.65	14.32	14.79
	8H	9.75	10.40	10.22	10.84	11.31	13.29	13.93	13.76	14.38	14.85
	12H	10.00	10.58	10.49	11.06	11.53	13.41	13.98	13.89	14.46	14.93
8H	4H	9.27	9.91	9.74	10.36	10.83	13.01	13.66	13.48	14.10	14.57
	6H	10.22	10.75	10.73	11.25	11.73	13.34	13.87	13.84	14.37	14.85
	8H	10.69	11.17	11.21	11.68	12.18	13.53	14.01	14.05	14.53	15.02
	12H	11.17	11.59	11.68	12.08	12.66	13.77	14.19	14.28	14.68	15.25
12H	4H	9.33	9.90	9.81	10.38	10.86	13.00	13.57	13.49	14.06	14.53
	6H	10.37	10.85	10.89	11.36	11.86	13.37	13.85	13.89	14.36	14.85
	8H	10.97	11.39	11.48	11.89	12.46	13.63	14.05	14.15	14.55	15.12