

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: P1059326

Luminaire Tested: S123RDRP-S560D950-X4F0-XX-UDD-WVL-S

Issue Date: 8/7/2025

**Test Information**

Test Method: LM-79-2024  
Report Number: P1059326  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2406-143-67 )  
Test Lab: INNOVATION CENTER  
Issue Date: 8/7/2025  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: NEO-RAY  
Catalog Number: S123RDRP-S560D950-X4F0-XX-UDD-WVL-S  
Description: DEFINE 3 SILVER REGRESSED DIRECT RECESSED HOUSING WITH WHITE STRAIGHT BLADE  
LOUVER WITH DIFFUSER  
CORE LIGHT ENGINE  
Light Source: 5000K CCT, 90 CRI LEDS  
Ballast/Driver: -

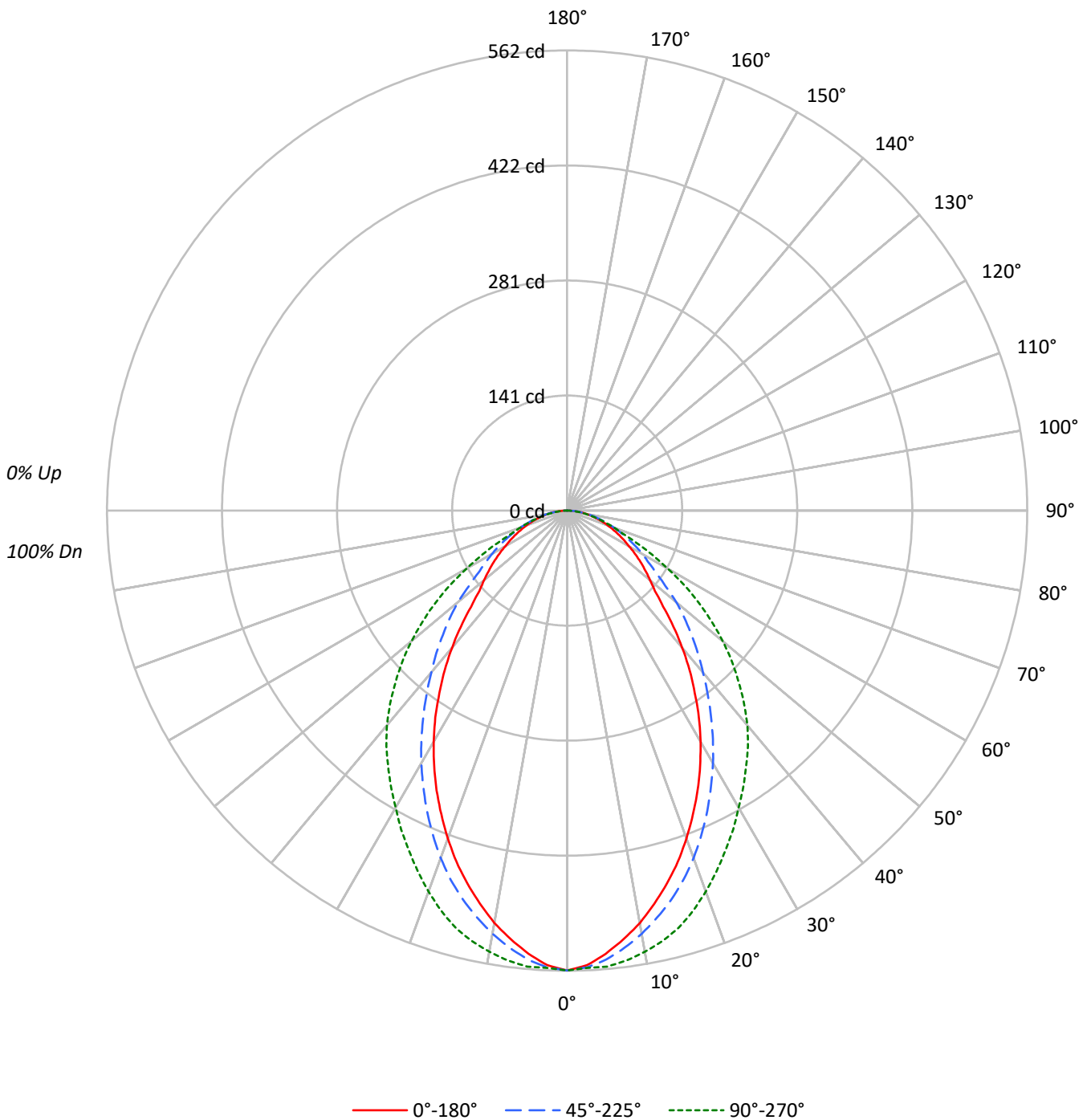
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 1014.5 lumens  
Efficiency: N/A  
Efficacy: 51.8 lumens/watt  
Spacing Criteria (0/90/45): 0.93 / 1.12 / 1.1  
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	110	106	102	99	108	104	100	97	100	97	94	96	93	91	92	90	89	87
2	102	94	88	83	99	92	87	82	89	84	80	86	82	78	83	80	77	75
3	94	84	77	71	91	83	76	71	80	74	69	77	72	68	75	71	67	65
4	87	76	68	62	84	74	67	61	72	66	61	70	64	60	68	63	59	57
5	80	69	60	54	78	68	60	54	65	59	54	64	58	53	62	57	53	51
6	75	63	54	48	73	62	54	48	60	53	48	58	52	47	57	51	47	45
7	70	57	49	44	68	56	49	43	55	48	43	54	47	43	52	47	43	41
8	65	53	45	39	64	52	45	39	51	44	39	50	43	39	48	43	39	37
9	61	49	41	36	60	48	41	36	47	40	36	46	40	36	45	39	35	34
10	58	45	38	33	56	45	38	33	44	37	33	43	37	33	42	37	33	31

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

	0°	45°	90°
0°	6595	6595	6595
5°	6403	6488	6589
10°	6099	6256	6523
15°	5731	5979	6410
20°	5323	5643	6187
25°	4887	5246	5929
30°	4419	4830	5677
35°	3898	4388	5464
40°	3351	3956	5247
45°	2755	3564	4920
50°	2417	3175	4534
55°	2238	2708	4017
60°	2057	2489	3323
65°	1920	2287	2615
70°	1809	2081	2081
75°	1701	1910	1792
80°	1603	1738	1515
85°	1509	1684	1159

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 90°  
 Vertical Angle: 45°  
 Luminance: 4920 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	51.9	5.1
10°-20°	139.2	13.7
20°-30°	188.7	18.6
30°-40°	197.3	19.5
40°-50°	171.1	16.9
50°-60°	127.3	12.6
60°-70°	81.7	8.1
70°-80°	43.8	4.3
80°-90°	13.2	1.3
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°	379.9	37.4
0°-40°	577.2	56.9
0°-60°	875.7	86.3
0°-90°	1014.5	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1014.5	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	562	562	562	562	562	
5°	543	552	550	554	559	51
15°	471	483	492	512	527	132
25°	377	389	405	432	458	173
35°	272	285	306	345	381	170
45°	166	178	215	261	296	131
55°	109	112	132	170	196	98
65°	69	75	82	88	94	69
75°	38	44	42	40	40	40
85°	11	14	12	10	9	13
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	561.6	561.6	561.6	561.6	561.6
2.5°	555.7	563.6	558.3	558.3	559.0
5°	543.2	552.4	550.4	554.3	559.0
7.5°	528.0	537.9	538.5	547.8	554.3
10°	511.5	521.4	524.7	537.9	547.1
12.5°	491.8	503.0	508.9	525.4	538.5
15°	471.4	482.6	491.8	511.5	527.3
17.5°	449.7	460.9	472.7	495.1	512.2
20°	426.0	437.8	451.6	474.0	495.1
22.5°	401.6	414.1	428.6	453.0	476.7
25°	377.2	389.1	404.9	431.9	457.6
27.5°	351.6	364.1	380.5	410.2	439.1
30°	325.9	338.4	356.2	387.8	418.7
32.5°	299.6	312.1	331.2	366.7	400.3
35°	271.9	285.1	306.1	345.0	381.2
37.5°	245.6	258.1	281.8	324.6	362.8
40°	218.6	231.7	258.1	304.2	342.3
42.5°	192.2	205.4	236.4	282.4	320.0
45°	165.9	178.4	214.6	260.7	296.3
47.5°	145.5	154.7	194.2	237.7	273.2
50°	132.3	135.6	173.8	215.3	248.2
52.5°	120.5	123.1	151.4	192.9	222.5
55°	109.3	111.9	132.3	169.9	196.2
57.5°	98.1	101.4	117.8	146.2	169.9
60°	87.6	91.5	106.0	125.1	141.5
62.5°	78.3	83.0	94.1	106.0	117.2
65°	69.1	75.1	82.3	87.6	94.1
67.5°	60.6	67.2	71.1	72.4	73.1
70°	52.7	59.3	60.6	60.6	60.6
72.5°	44.8	52.0	50.7	50.0	49.4
75°	37.5	43.5	42.1	40.2	39.5
77.5°	30.3	35.6	33.6	32.3	30.3
80°	23.7	27.7	25.7	24.4	22.4
82.5°	17.8	20.4	18.4	17.1	15.1
85°	11.2	13.8	12.5	10.5	8.6
87.5°	5.9	7.9	6.6	5.9	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	13.34	14.82	13.70	15.14	15.45	16.10	17.58	16.46	17.89	18.21
	3H	15.05	16.38	15.43	16.71	17.07	17.12	18.45	17.50	18.77	19.14
	4H	15.71	16.96	16.11	17.31	17.69	17.48	18.73	17.88	19.08	19.46
	6H	16.21	17.36	16.63	17.73	18.12	17.74	18.89	18.15	19.25	19.65
	8H	16.39	17.49	16.82	17.88	18.28	17.81	18.90	18.24	19.29	19.69
	12H	16.52	17.57	16.95	17.95	18.38	17.84	18.89	18.27	19.27	19.70
4H	2H	14.12	15.36	14.52	15.71	16.09	16.37	17.61	16.77	17.96	18.34
	3H	16.04	17.08	16.45	17.48	17.88	17.62	18.65	18.03	19.06	19.46
	4H	16.85	17.78	17.29	18.20	18.64	18.11	19.04	18.54	19.45	19.89
	6H	17.49	18.30	17.95	18.75	19.21	18.49	19.30	18.95	19.74	20.20
	8H	17.72	18.48	18.19	18.92	19.39	18.60	19.36	19.07	19.80	20.27
	12H	17.90	18.57	18.38	19.05	19.52	18.67	19.35	19.16	19.83	20.30
8H	4H	17.17	17.93	17.64	18.37	18.84	18.30	19.06	18.77	19.50	19.97
	6H	17.97	18.59	18.46	19.08	19.56	18.79	19.41	19.29	19.91	20.38
	8H	18.29	18.85	18.81	19.36	19.85	18.96	19.53	19.48	20.04	20.52
	12H	18.57	19.07	19.08	19.56	20.12	19.10	19.59	19.61	20.09	20.65
12H	4H	17.20	17.87	17.68	18.35	18.82	18.32	18.99	18.80	19.47	19.94
	6H	18.02	18.58	18.53	19.09	19.58	18.83	19.39	19.34	19.90	20.39
	8H	18.41	18.91	18.92	19.40	19.97	19.06	19.55	19.57	20.04	20.61