

Cooper Lighting Solutions Photometric Lab
1121 Highway 74 South
Peachtree City, GA 30269



Scaled data based on original data using
LM-79-2019 Approved Method: Electrical and Photometric Measurements of Solid-
State Lighting Products

Test Report Prepared for
Cooper Lighting Solutions

Brand: NEO-RAY

Report Number: P1059729

Luminaire Tested: S123RDR-H560D950-X4F0-XX-UDD-SVL-W

Issue Date: 8/7/2025

Test Information

Test Method: LM-79-2019
Report Number: P1059729
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: S123RDR-H560D950-X4F0-XX-UDD-SVL-W
Description: DEFINE 3 WHITE REGRESSED DIRECT RECESSED HOUSING WITH SILVER STRAIGHT BLADE LOUVER WITH DIFFUSER
HIGH PERFORMANCE LIGHT ENGINE
Light Source: 5000K CCT, 90 CRI LEDS
Ballast/Driver: -

Summary

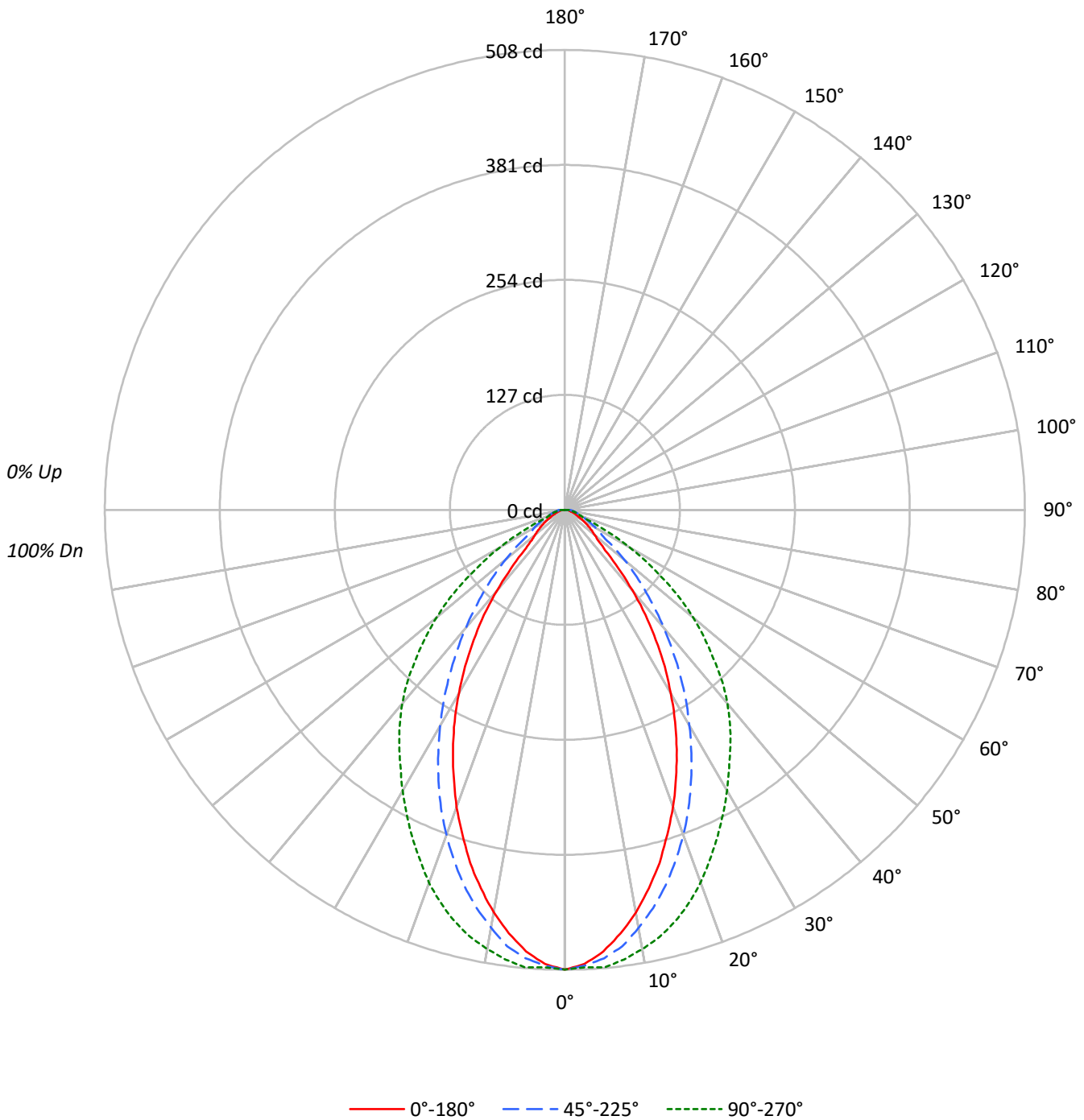
Lumens per Lamp: N/A
Luminaire Lumens: 681.7 lumens
Efficiency: N/A
Efficacy: 39.2 lumens/watt
Spacing Criteria (0/90/45): 0.83 / 1.08 / 0.98
Luminous Opening: Rectangular (W 0.23' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 17.4
Input Voltage (V): 120
Input Current (Ain): 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	50	30	10	0	
RCR																						
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100				100
1	111	108	105	102	109	106	103	100	102	99	97	98	96	94	94	93	91	89				89
2	104	98	92	88	102	96	91	87	92	88	85	89	86	83	86	84	81	79				79
3	97	89	82	77	95	87	81	77	84	79	75	82	78	74	79	76	73	71				71
4	90	81	74	68	88	80	73	68	77	72	67	75	70	66	73	69	66	64				64
5	85	74	67	61	83	73	66	61	71	65	60	69	64	60	68	63	59	58				58
6	79	68	61	55	78	67	60	55	66	59	55	64	59	54	63	58	54	52				52
7	74	63	56	51	73	62	55	50	61	55	50	60	54	50	58	53	49	48				48
8	70	58	51	46	69	58	51	46	57	50	46	55	50	46	54	49	45	44				44
9	66	54	47	43	65	54	47	43	53	47	42	52	46	42	51	46	42	40				40
10	62	51	44	39	61	50	44	39	49	43	39	49	43	39	48	43	39	37				37

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	5963	5963	5963
5°	5770	5859	5979
10°	5386	5589	5875
15°	4908	5223	5721
20°	4367	4777	5478
25°	3785	4274	5166
30°	3173	3729	4858
35°	2514	3174	4567
40°	1780	2610	4284
45°	1048	2064	3854
50°	784	1567	3376
55°	659	1058	2713
60°	533	904	1926
65°	420	772	1017
70°	367	673	628
75°	345	631	599
80°	338	683	595
85°	431	1024	768

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°
 Vertical Angle: 45°
 Luminance: 3854 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	46.7	6.9
10°-20°	121.5	17.8
20°-30°	154.7	22.7
30°-40°	145.5	21.3
40°-50°	104.8	15.4
50°-60°	60.5	8.9
60°-70°	27.7	4.1
70°-80°	13.8	2.0
80°-90°	6.5	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°	322.9	47.4
0°-40°	468.4	68.7
0°-60°	633.7	93.0
0°-90°	681.7	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	681.7	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	508	508	508	508	508	
5°	490	498	497	502	507	46
15°	404	418	430	454	471	113
25°	292	307	330	366	399	134
35°	175	190	221	272	319	109
45°	63	79	124	187	232	53
55°	32	33	52	98	132	29
65°	15	21	28	31	37	15
75°	8	14	14	13	13	8
85°	3	7	8	7	6	3
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	507.8	507.8	507.8	507.8	507.8
2.5°	502.1	508.5	504.0	504.7	505.9
5°	489.5	497.7	497.1	502.1	507.2
7.5°	471.9	481.3	486.4	493.9	500.9
10°	451.7	462.4	468.7	482.6	492.7
12.5°	428.3	442.2	450.4	468.7	483.2
15°	403.7	418.2	429.6	453.6	470.6
17.5°	376.0	391.7	406.3	434.6	455.5
20°	349.5	364.6	382.3	413.2	438.4
22.5°	320.5	336.9	357.1	389.9	418.2
25°	292.1	307.2	329.9	366.5	398.7
27.5°	263.7	278.8	302.8	343.2	378.5
30°	234.0	249.8	275.0	319.8	358.3
32.5°	205.0	220.2	248.5	297.1	337.5
35°	175.4	190.5	221.4	272.5	318.6
37.5°	146.4	162.1	194.9	252.3	299.6
40°	116.1	133.1	170.3	231.5	279.5
42.5°	87.7	106.0	145.7	210.1	257.4
45°	63.1	78.9	124.3	186.7	232.1
47.5°	49.2	57.4	104.7	162.8	208.8
50°	42.9	44.2	85.8	140.7	184.8
52.5°	37.2	38.5	67.5	119.9	159.6
55°	32.2	33.4	51.7	98.4	132.5
57.5°	27.1	29.0	42.9	78.2	106.6
60°	22.7	25.2	38.5	59.9	82.0
62.5°	18.3	22.7	32.8	44.2	58.7
65°	15.1	21.4	27.8	30.9	36.6
67.5°	12.6	19.6	23.3	22.1	21.4
70°	10.7	17.7	19.6	17.7	18.3
72.5°	8.8	16.4	16.4	15.1	15.1
75°	7.6	14.5	13.9	13.2	13.2
77.5°	6.3	12.6	12.0	11.4	10.7
80°	5.0	10.1	10.1	9.5	8.8
82.5°	4.4	8.2	8.2	8.2	6.9
85°	3.2	6.9	7.6	6.9	5.7
87.5°	2.5	6.3	6.3	5.7	3.8
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	6.17	7.49	6.53	7.80	8.12	13.54	14.85	13.90	15.17	15.48
	3H	7.56	8.73	7.94	9.06	9.43	13.77	14.94	14.15	15.27	15.63
	4H	8.12	9.21	8.52	9.56	9.94	13.88	14.97	14.28	15.32	15.70
	6H	8.55	9.55	8.96	9.92	10.31	13.99	15.00	14.41	15.37	15.76
	8H	8.72	9.67	9.15	10.06	10.47	14.04	14.99	14.47	15.39	15.79
	12H	8.88	9.79	9.31	10.17	10.60	14.10	15.01	14.54	15.40	15.83
4H	2H	7.27	8.36	7.68	8.72	9.10	13.49	14.58	13.90	14.94	15.32
	3H	8.94	9.83	9.35	10.24	10.64	13.85	14.75	14.27	15.15	15.56
	4H	9.75	10.55	10.18	10.97	11.41	14.05	14.85	14.48	15.27	15.71
	6H	10.38	11.07	10.84	11.52	11.98	14.28	14.97	14.74	15.42	15.88
	8H	10.62	11.26	11.08	11.71	12.18	14.38	15.03	14.85	15.47	15.94
	12H	10.83	11.40	11.32	11.88	12.36	14.51	15.08	15.00	15.56	16.04
8H	4H	10.19	10.84	10.66	11.28	11.75	14.09	14.73	14.56	15.18	15.65
	6H	11.10	11.63	11.60	12.13	12.61	14.42	14.95	14.92	15.44	15.92
	8H	11.52	11.99	12.04	12.51	13.00	14.61	15.08	15.13	15.60	16.09
	12H	11.94	12.36	12.45	12.85	13.42	14.86	15.28	15.37	15.77	16.34
12H	4H	10.25	10.82	10.73	11.30	11.78	14.08	14.65	14.56	15.13	15.61
	6H	11.23	11.71	11.76	12.23	12.72	14.43	14.91	14.95	15.43	15.92
	8H	11.77	12.19	12.29	12.69	13.26	14.69	15.11	15.20	15.61	16.18