

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: P1059732

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

Issue Date: 8/7/2025

Test Information

Test Method: LM-79-2019
Report Number: P1059732
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2406-143-64)
Test Lab: INNOVATION CENTER
Issue Date: 8/7/2025
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: NEO-RAY
Catalog Number: S123RDR-H560D950-X4F0-XX-UDD-WVL-W
Description: DEFINE 3 WHITE REGRESSED DIRECT RECESSED HOUSING WITH WHITE STRAIGHT BLADE LOUVER WITH DIFFUSER
HIGH PERFORMANCE LIGHT ENGINE
Light Source: 5000K CCT, 90 CRI LEDS
Ballast/Driver: -

Summary

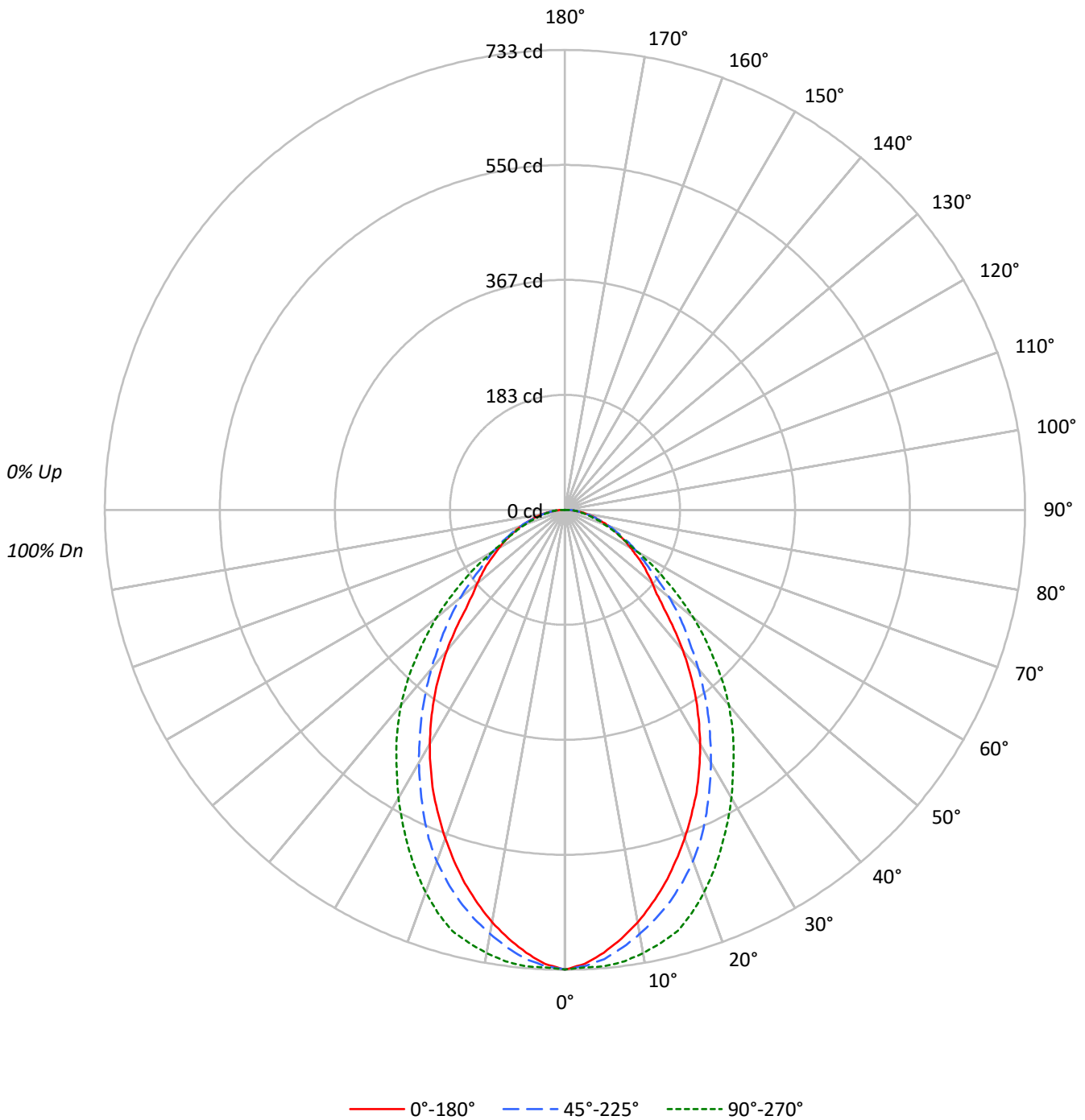
Lumens per Lamp: N/A
Luminaire Lumens: 1287.3 lumens
Efficiency: N/A
Efficacy: 74.0 lumens/watt
Spacing Criteria (0/90/45): 0.94 / 1.1 / 1.09
Luminous Opening: Rectangular (W 0.23' x L: 4' x H: 0')
CIE Type: Direct

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

TEST NUMBER: P1059732

CATALOG NUMBER: S123RDR-H560D950-X4F0-XX-UDD-WVL-W

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	101	97	100	97	94	96	94	92	92	91	89	87
2	102	95	89	84	99	93	87	83	89	85	81	86	82	79	83	80	77	75
3	94	85	77	72	92	83	76	71	80	75	70	78	73	69	75	71	68	66
4	87	76	69	63	85	75	68	62	73	66	61	70	65	61	68	64	60	58
5	81	69	61	55	79	68	61	55	66	59	54	64	58	54	62	57	53	51
6	75	63	55	49	73	62	55	49	61	54	49	59	53	48	57	52	48	46
7	70	58	50	44	69	57	50	44	56	49	44	54	48	44	53	48	43	41
8	66	53	46	40	64	53	45	40	51	45	40	50	44	40	49	44	39	38
9	62	49	42	37	60	49	42	37	48	41	36	47	41	36	46	40	36	34
10	58	46	39	34	57	45	38	34	45	38	34	44	38	33	43	37	33	32

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	8603	8603	8603
5°	8352	8472	8605
10°	7960	8186	8554
15°	7487	7856	8445
20°	6964	7453	8106
25°	6428	6910	7661
30°	5839	6309	7189
35°	5196	5694	6714
40°	4484	5074	6223
45°	3707	4492	5580
50°	3328	3962	4872
55°	3085	3382	4039
60°	2842	3079	3095
65°	2645	2784	2592
70°	2489	2534	2273
75°	2346	2259	2001
80°	2218	2049	1873
85°	2129	2290	2129

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°
 Vertical Angle: 45°
 Luminance: 5580 cd/sqm



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CATALOG NUMBER: S123RDR-H560D950-X4F0-XX-UDD-WVL-W

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	67.8	5.3
10°-20°	182.8	14.2
20°-30°	247.3	19.2
30°-40°	254.1	19.7
40°-50°	213.4	16.6
50°-60°	153.0	11.9
60°-70°	97.4	7.6
70°-80°	53.5	4.2
80°-90°	17.9	1.4
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°	497.9	38.7
0°-40°	752.0	58.4
0°-60°	1118.5	86.9
0°-90°	1287.3	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1287.3	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	733	733	733	733	733	
5°	709	721	719	724	730	66
15°	616	633	646	674	695	173
25°	496	515	533	562	591	227
35°	362	382	397	432	468	226
45°	223	243	270	310	336	176
55°	151	154	165	187	197	135
65°	95	101	100	95	93	95
75°	52	57	50	46	44	55
85°	16	16	17	18	16	17
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	732.6	732.6	732.6	732.6	732.6
2.5°	724.4	734.5	727.5	728.1	730.0
5°	708.6	721.2	718.7	723.7	730.0
7.5°	689.1	702.9	703.6	715.5	725.6
10°	667.6	682.1	686.5	704.8	717.4
12.5°	642.4	658.2	667.6	690.3	706.7
15°	615.9	633.0	646.2	673.9	694.7
17.5°	586.9	605.2	622.2	651.9	673.3
20°	557.3	576.8	596.4	624.1	648.7
22.5°	526.4	546.6	566.8	593.9	621.0
25°	496.1	515.1	533.3	562.3	591.3
27.5°	463.4	482.9	498.7	530.8	561.1
30°	430.6	450.1	465.3	498.7	530.2
32.5°	396.5	416.7	430.6	465.3	498.0
35°	362.5	382.0	397.2	432.5	468.4
37.5°	326.6	348.0	363.1	402.8	438.1
40°	292.5	312.7	331.0	372.6	406.0
42.5°	257.2	278.0	298.8	341.7	372.6
45°	223.2	242.7	270.5	309.5	336.0
47.5°	198.6	211.2	243.3	276.1	301.3
50°	182.2	187.2	216.9	245.9	266.7
52.5°	165.8	169.6	189.8	216.2	232.0
55°	150.7	153.8	165.2	187.2	197.3
57.5°	134.3	137.4	146.9	159.5	165.2
60°	121.0	123.6	131.1	133.0	131.8
62.5°	107.8	111.6	115.4	111.0	109.1
65°	95.2	100.9	100.2	94.6	93.3
67.5°	83.8	89.5	86.4	80.7	78.8
70°	72.5	78.2	73.8	68.1	66.2
72.5°	61.8	68.1	61.2	56.1	54.8
75°	51.7	56.7	49.8	46.0	44.1
77.5°	42.2	46.0	39.7	36.6	35.3
80°	32.8	35.3	30.3	28.4	27.7
82.5°	24.0	25.2	22.1	23.3	22.7
85°	15.8	16.4	17.0	17.7	15.8
87.5°	7.6	10.7	10.7	10.1	8.2
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	14.66	16.12	15.03	16.44	16.75	15.73	17.19	16.10	17.51	17.82
	3H	16.36	17.67	16.74	18.00	18.36	16.82	18.13	17.19	18.46	18.82
	4H	17.01	18.24	17.41	18.59	18.97	17.22	18.44	17.62	18.79	19.17
	6H	17.51	18.65	17.93	19.02	19.41	17.53	18.66	17.94	19.03	19.42
	8H	17.69	18.77	18.12	19.16	19.56	17.66	18.74	18.09	19.13	19.53
	12H	17.81	18.85	18.24	19.23	19.66	17.78	18.81	18.21	19.20	19.63
4H	2H	15.26	16.49	15.66	16.84	17.22	16.13	17.36	16.53	17.71	18.09
	3H	17.19	18.21	17.60	18.61	19.01	17.45	18.47	17.86	18.87	19.27
	4H	18.00	18.92	18.43	19.33	19.77	17.97	18.89	18.40	19.30	19.74
	6H	18.65	19.45	19.11	19.89	20.35	18.40	19.20	18.86	19.64	20.11
	8H	18.87	19.62	19.34	20.06	20.53	18.59	19.34	19.06	19.78	20.25
	12H	19.04	19.71	19.53	20.19	20.66	18.78	19.44	19.26	19.92	20.39
8H	4H	18.24	18.98	18.70	19.43	19.90	18.22	18.96	18.68	19.41	19.87
	6H	19.03	19.64	19.52	20.13	20.61	18.77	19.38	19.26	19.87	20.35
	8H	19.34	19.89	19.86	20.40	20.89	19.04	19.59	19.56	20.11	20.59
	12H	19.61	20.10	20.12	20.59	21.16	19.34	19.82	19.85	20.32	20.88
12H	4H	18.25	18.91	18.73	19.39	19.87	18.24	18.91	18.73	19.39	19.86
	6H	19.06	19.61	19.58	20.13	20.61	18.82	19.37	19.33	19.88	20.37
	8H	19.44	19.93	19.95	20.42	20.98	19.16	19.65	19.67	20.14	20.71