

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: P1059702

Luminaire Tested: S123RDR-H560D930-X4F0-XX-UDD-SVL-W

Issue Date: 8/7/2025

Test Information

Test Method: LM-79-2019
Report Number: P1059702
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-H560D930-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: 3000K CCT, 90 CRI LEDS
Ballast/Driver: -

Summary

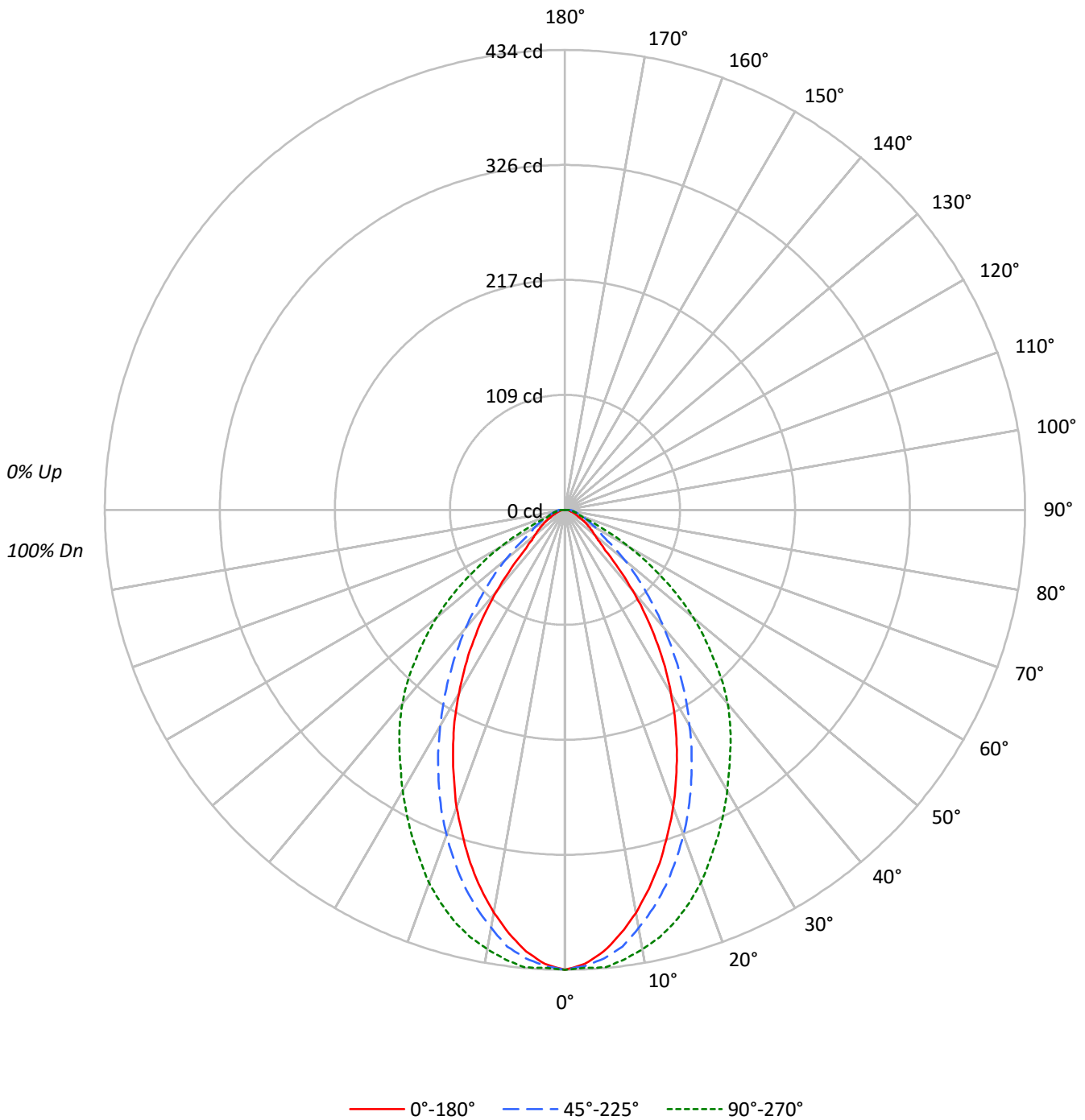
Lumens per Lamp: N/A
Luminaire Lumens: 582.6 lumens
Efficiency: N/A
Efficacy: 33.5 lumens/watt
Spacing Criteria (0/90/45): 0.83 / 1.08 / 0.98
Luminous Opening: Rectangular (W 0.23' x L: 4' x H: 0')
CIE Type: Direct

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

TEST NUMBER: P1059702

CATALOG NUMBER: S123RDR-H560D930-X4F0-XX-UDD-SVL-W

Luminous Intensity Polar Plot





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COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:

RF	20									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	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°	5096	5096	5096
5°	4932	5007	5109
10°	4603	4777	5020
15°	4194	4463	4889
20°	3733	4082	4682
25°	3234	3654	4414
30°	2712	3188	4152
35°	2149	2712	3903
40°	1521	2232	3660
45°	895	1764	3295
50°	670	1339	2886
55°	563	905	2317
60°	456	773	1646
65°	358	659	870
70°	316	573	536
75°	295	540	513
80°	291	582	507
85°	364	876	660

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°
 Vertical Angle: 45°
 Luminance: 3295 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	39.9	6.9
10°-20°	103.8	17.8
20°-30°	132.2	22.7
30°-40°	124.3	21.3
40°-50°	89.6	15.4
50°-60°	51.7	8.9
60°-70°	23.6	4.1
70°-80°	11.8	2.0
80°-90°	5.6	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°	275.9	47.4
0°-40°	400.3	68.7
0°-60°	541.6	93.0
0°-90°	582.6	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	582.6	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	434	434	434	434	434	
5°	418	425	425	429	433	39
15°	345	357	367	388	402	96
25°	250	262	282	313	341	114
35°	150	163	189	233	272	93
45°	54	67	106	160	198	46
55°	28	29	44	84	113	25
65°	13	18	24	26	31	13
75°	6	12	12	11	11	7
85°	3	6	6	6	5	3
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	434.0	434.0	434.0	434.0	434.0
2.5°	429.1	434.5	430.8	431.3	432.4
5°	418.4	425.4	424.8	429.1	433.4
7.5°	403.3	411.3	415.7	422.1	428.1
10°	386.0	395.2	400.6	412.4	421.0
12.5°	366.1	377.9	384.9	400.6	413.0
15°	345.0	357.4	367.1	387.6	402.2
17.5°	321.3	334.8	347.2	371.5	389.2
20°	298.7	311.6	326.7	353.1	374.7
22.5°	273.9	287.9	305.1	333.2	357.4
25°	249.6	262.5	282.0	313.2	340.7
27.5°	225.4	238.3	258.8	293.3	323.5
30°	200.0	213.5	235.1	273.3	306.2
32.5°	175.2	188.2	212.4	253.9	288.4
35°	149.9	162.8	189.2	232.9	272.3
37.5°	125.1	138.6	166.6	215.6	256.1
40°	99.2	113.8	145.6	197.9	238.8
42.5°	74.9	90.6	124.5	179.5	220.0
45°	53.9	67.4	106.2	159.6	198.4
47.5°	42.1	49.1	89.5	139.1	178.4
50°	36.7	37.7	73.3	120.2	158.0
52.5°	31.8	32.9	57.7	102.4	136.4
55°	27.5	28.6	44.2	84.1	113.2
57.5°	23.2	24.8	36.7	66.9	91.1
60°	19.4	21.6	32.9	51.2	70.1
62.5°	15.6	19.4	28.0	37.7	50.1
65°	12.9	18.3	23.7	26.4	31.3
67.5°	10.8	16.7	19.9	18.9	18.3
70°	9.2	15.1	16.7	15.1	15.6
72.5°	7.5	14.0	14.0	12.9	12.9
75°	6.5	12.4	11.9	11.3	11.3
77.5°	5.4	10.8	10.2	9.7	9.2
80°	4.3	8.6	8.6	8.1	7.5
82.5°	3.8	7.0	7.0	7.0	5.9
85°	2.7	5.9	6.5	5.9	4.9
87.5°	2.2	5.4	5.4	4.9	3.2
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	5.63	6.95	6.00	7.26	7.58	12.99	14.31	13.36	14.63	14.94
	3H	7.02	8.19	7.40	8.52	8.88	13.22	14.39	13.60	14.72	15.09
	4H	7.57	8.66	7.98	9.01	9.40	13.34	14.43	13.74	14.78	15.16
	6H	8.01	9.01	8.42	9.38	9.77	13.45	14.45	13.87	14.83	15.22
	8H	8.18	9.13	8.61	9.52	9.93	13.50	14.45	13.93	14.84	15.25
	12H	8.34	9.25	8.77	9.63	10.06	13.56	14.47	14.00	14.85	15.28
4H	2H	6.73	7.82	7.13	8.17	8.55	12.95	14.04	13.36	14.39	14.78
	3H	8.39	9.28	8.80	9.69	10.09	13.31	14.21	13.72	14.61	15.01
	4H	9.20	10.00	9.64	10.42	10.86	13.51	14.31	13.94	14.73	15.17
	6H	9.84	10.53	10.30	10.97	11.44	13.73	14.43	14.20	14.87	15.34
	8H	10.07	10.72	10.54	11.17	11.64	13.84	14.48	14.31	14.93	15.40
	12H	10.29	10.86	10.77	11.34	11.81	13.97	14.54	14.45	15.02	15.50
8H	4H	9.64	10.29	10.11	10.74	11.21	13.54	14.19	14.01	14.64	15.11
	6H	10.55	11.08	11.05	11.58	12.06	13.87	14.40	14.37	14.90	15.38
	8H	10.97	11.45	11.49	11.96	12.45	14.06	14.54	14.58	15.05	15.55
	12H	11.39	11.81	11.90	12.30	12.88	14.31	14.73	14.83	15.23	15.80
12H	4H	9.70	10.27	10.19	10.75	11.23	13.53	14.11	14.02	14.59	15.06
	6H	10.69	11.16	11.21	11.68	12.17	13.89	14.37	14.41	14.88	15.37
	8H	11.22	11.65	11.74	12.14	12.71	14.14	14.57	14.66	15.06	15.63