

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: P1059276

Luminaire Tested: S123RDRP-S560D850-X4F0-XX-UDD-BVL-W

Issue Date: 8/7/2025

Test Information

Test Method: LM-79-2024
Report Number: P1059276
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2406-143-66)
Test Lab: INNOVATION CENTER
Issue Date: 8/7/2025
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: NEO-RAY
Catalog Number: S123RDRP-S560D850-X4F0-XX-UDD-BVL-W
Description: DEFINE 3 WHITE REGRESSED DIRECT RECESSED HOUSING WITH BLACK STRAIGHT BLADE
LOUVER WITH DIFFUSER
CORE LIGHT ENGINE
Light Source: 5000K CCT, 80 CRI LEDS
Ballast/Driver: -

Summary

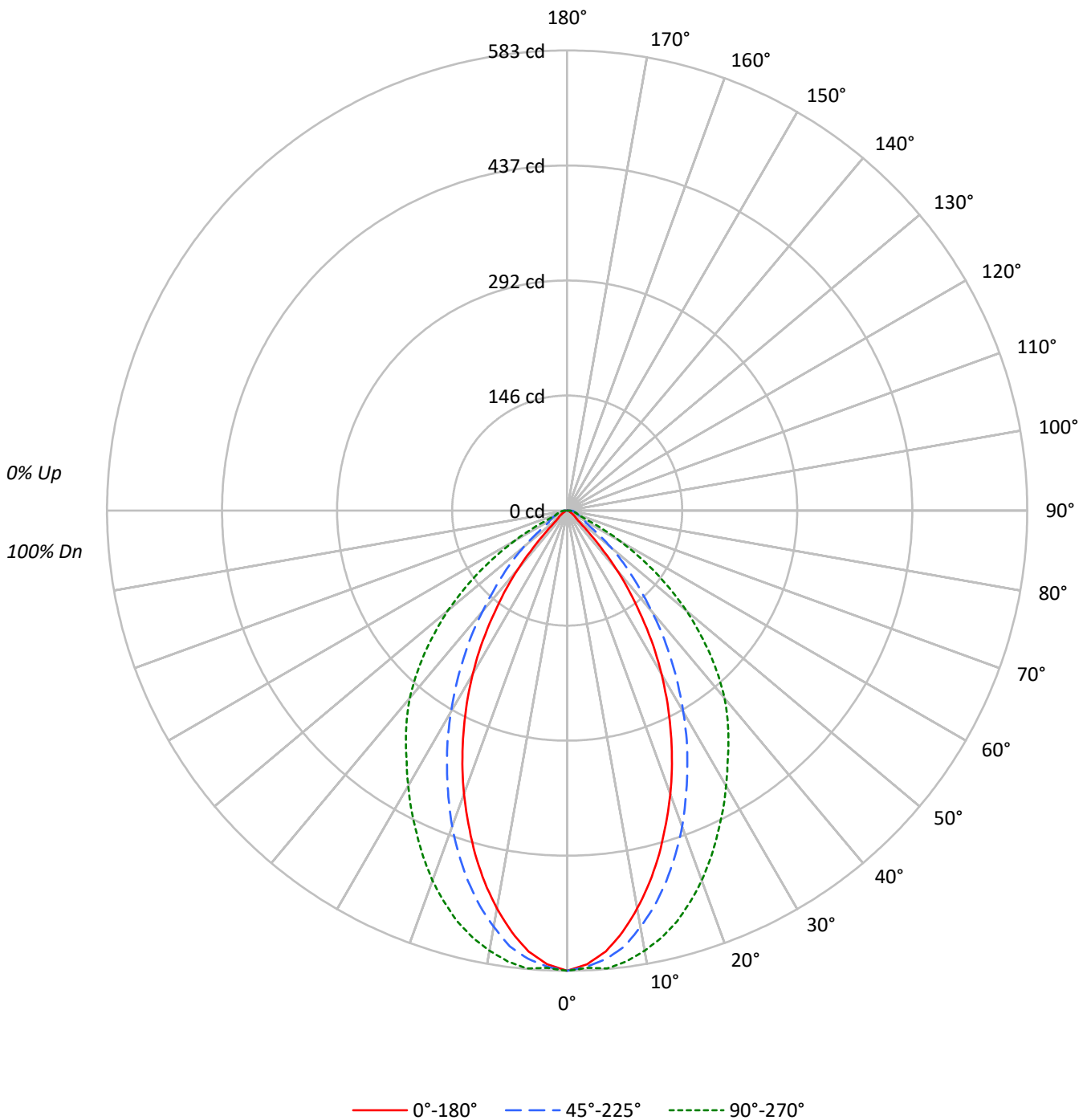
Lumens per Lamp: N/A
Luminaire Lumens: 700.0 lumens
Efficiency: N/A
Efficacy: 35.7 lumens/watt
Spacing Criteria (0/90/45): 0.79 / 1.06 / 0.94
Luminous Opening: Rectangular (W 0.23' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 19.6
Input Voltage (V): 120
Input Current (A_{in}): 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: P1059276

CATALOG NUMBER: S123RDRP-S560D850-X4F0-XX-UDD-BVL-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	112	108	105	102	109	106	103	101	102	100	98	98	96	95	95	93	92	90
2	105	99	94	90	102	97	92	88	94	90	86	91	87	85	88	85	83	81
3	98	90	84	79	96	89	83	79	86	81	77	83	79	76	81	78	75	73
4	92	83	76	71	90	81	75	70	79	74	70	77	72	69	75	71	68	66
5	86	76	69	64	84	75	69	64	73	67	63	71	66	62	70	65	62	60
6	81	70	63	58	79	69	63	58	68	62	57	66	61	57	65	60	57	55
7	76	65	58	53	75	65	58	53	63	57	53	62	56	52	61	56	52	50
8	72	61	54	49	70	60	53	49	59	53	49	58	52	48	57	52	48	47
9	68	57	50	45	67	56	50	45	55	49	45	54	49	45	53	48	45	43
10	64	53	46	42	63	53	46	42	52	46	42	51	45	42	50	45	42	40

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	6846	6846	6846
5°	6610	6718	6863
10°	6101	6385	6750
15°	5475	5904	6546
20°	4777	5322	6232
25°	4029	4664	5846
30°	3241	3989	5463
35°	2372	3284	5106
40°	1479	2560	4756
45°	560	1908	4236
50°	267	1315	3610
55°	205	721	2792
60°	143	611	1834
65°	106	533	767
70°	106	501	501
75°	141	522	522
80°	210	622	568
85°	418	1037	822

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°
 Vertical Angle: 45°
 Luminance: 4236 cd/sqm

TEST NUMBER: P1059276

CATALOG NUMBER: S123RDRP-S560D850-X4F0-XX-UDD-BVL-W

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	53.5	7.6
10°-20°	137.2	19.6
20°-30°	169.9	24.3
30°-40°	152.3	21.8
40°-50°	99.8	14.3
50°-60°	50.0	7.1
60°-70°	19.5	2.8
70°-80°	11.0	1.6
80°-90°	6.8	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°	360.6	51.5
0°-40°	512.9	73.3
0°-60°	662.7	94.7
0°-90°	700.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	700.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	583	583	583	583	583	
5°	561	570	570	576	582	52
15°	450	469	486	518	538	125
25°	311	330	360	411	451	142
35°	166	188	229	298	356	103
45°	34	54	115	197	255	32
55°	10	12	35	96	136	9
65°	4	12	19	25	28	4
75°	3	12	12	12	12	3
85°	3	8	8	8	6	3
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	583.0	583.0	583.0	583.0	583.0
2.5°	575.3	583.7	578.4	579.1	579.9
5°	560.8	569.9	569.9	576.1	582.2
7.5°	538.5	549.3	556.9	567.7	576.1
10°	511.7	524.8	535.5	554.6	566.1
12.5°	482.6	498.7	512.5	537.8	553.9
15°	450.4	468.8	485.7	517.9	538.5
17.5°	416.0	434.4	456.6	494.1	519.4
20°	382.3	400.6	425.9	468.1	498.7
22.5°	347.0	366.2	393.0	439.7	475.7
25°	311.0	330.2	360.0	411.4	451.2
27.5°	275.0	294.2	327.9	383.8	427.5
30°	239.0	258.2	294.2	353.9	402.9
32.5°	203.0	223.7	261.2	326.3	378.4
35°	165.5	187.7	229.1	298.0	356.2
37.5°	131.0	151.7	198.4	273.5	334.0
40°	96.5	118.7	167.0	249.7	310.3
42.5°	62.8	86.6	138.7	223.7	283.4
45°	33.7	54.4	114.9	196.9	255.1
47.5°	18.4	29.9	92.7	168.5	226.0
50°	14.6	16.9	72.0	144.0	197.6
52.5°	12.3	13.8	51.3	121.0	166.2
55°	10.0	12.3	35.2	96.5	136.4
57.5°	8.4	10.7	27.6	75.1	106.5
60°	6.1	9.2	26.0	55.2	78.1
62.5°	4.6	10.0	23.0	38.3	51.3
65°	3.8	11.5	19.2	25.3	27.6
67.5°	3.1	12.3	16.9	16.1	16.1
70°	3.1	11.5	14.6	13.8	14.6
72.5°	3.1	12.3	13.0	12.3	13.0
75°	3.1	11.5	11.5	11.5	11.5
77.5°	3.1	10.7	10.7	10.0	10.0
80°	3.1	9.2	9.2	9.2	8.4
82.5°	3.1	8.4	8.4	8.4	6.9
85°	3.1	7.7	7.7	7.7	6.1
87.5°	2.3	6.9	7.7	6.9	4.6
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	0.00	0.28	0.00	0.59	0.91	13.29	14.55	13.65	14.86	15.17
	3H	1.38	2.49	1.76	2.82	3.19	13.37	14.48	13.75	14.81	15.18
	4H	2.49	3.52	2.89	3.88	4.26	13.45	14.48	13.85	14.83	15.22
	6H	3.49	4.43	3.90	4.81	5.20	13.55	14.50	13.97	14.87	15.27
	8H	3.97	4.87	4.40	5.26	5.67	13.61	14.51	14.04	14.90	15.31
	12H	4.53	5.39	4.97	5.78	6.21	13.69	14.55	14.12	14.93	15.36
4H	2H	2.29	3.33	2.70	3.68	4.06	13.14	14.18	13.55	14.53	14.91
	3H	4.62	5.46	5.03	5.87	6.27	13.32	14.17	13.73	14.57	14.97
	4H	5.99	6.74	6.43	7.17	7.61	13.47	14.23	13.91	14.65	15.09
	6H	7.08	7.73	7.54	8.18	8.64	13.70	14.35	14.16	14.80	15.27
	8H	7.53	8.14	8.00	8.59	9.06	13.82	14.43	14.29	14.88	15.35
	12H	8.03	8.57	8.52	9.06	9.53	14.00	14.53	14.48	15.02	15.49
8H	4H	6.96	7.57	7.43	8.02	8.49	13.47	14.08	13.94	14.53	15.00
	6H	8.48	8.98	8.98	9.48	9.96	13.81	14.31	14.31	14.80	15.29
	8H	9.25	9.70	9.78	10.22	10.71	14.04	14.49	14.56	15.00	15.50
	12H	10.06	10.46	10.58	10.96	11.53	14.37	14.77	14.89	15.27	15.84
12H	4H	7.14	7.67	7.62	8.16	8.63	13.45	13.99	13.94	14.48	14.95
	6H	8.79	9.24	9.32	9.76	10.25	13.83	14.28	14.35	14.79	15.29
	8H	9.75	10.15	10.26	10.64	11.21	14.14	14.53	14.65	15.03	15.60