

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: P1059269

Luminaire Tested: S123RDRP-S560D840-X4F0-XX-UDD-SVL-S

Issue Date: 8/7/2025

Test Information

Test Method: LM-79-2024
Report Number: P1059269
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2406-143-68)
Test Lab: INNOVATION CENTER
Issue Date: 8/7/2025
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: NEO-RAY
Catalog Number: S123RDRP-S560D840-X4F0-XX-UDD-SVL-S
Description: DEFINE 3 SILVER REGRESSED DIRECT RECESSED HOUSING WITH SILVER STRAIGHT BLADE
LOUVER WITH DIFFUSER
CORE LIGHT ENGINE
Light Source: 4000K CCT, 80 CRI LEDS
Ballast/Driver: -

Summary

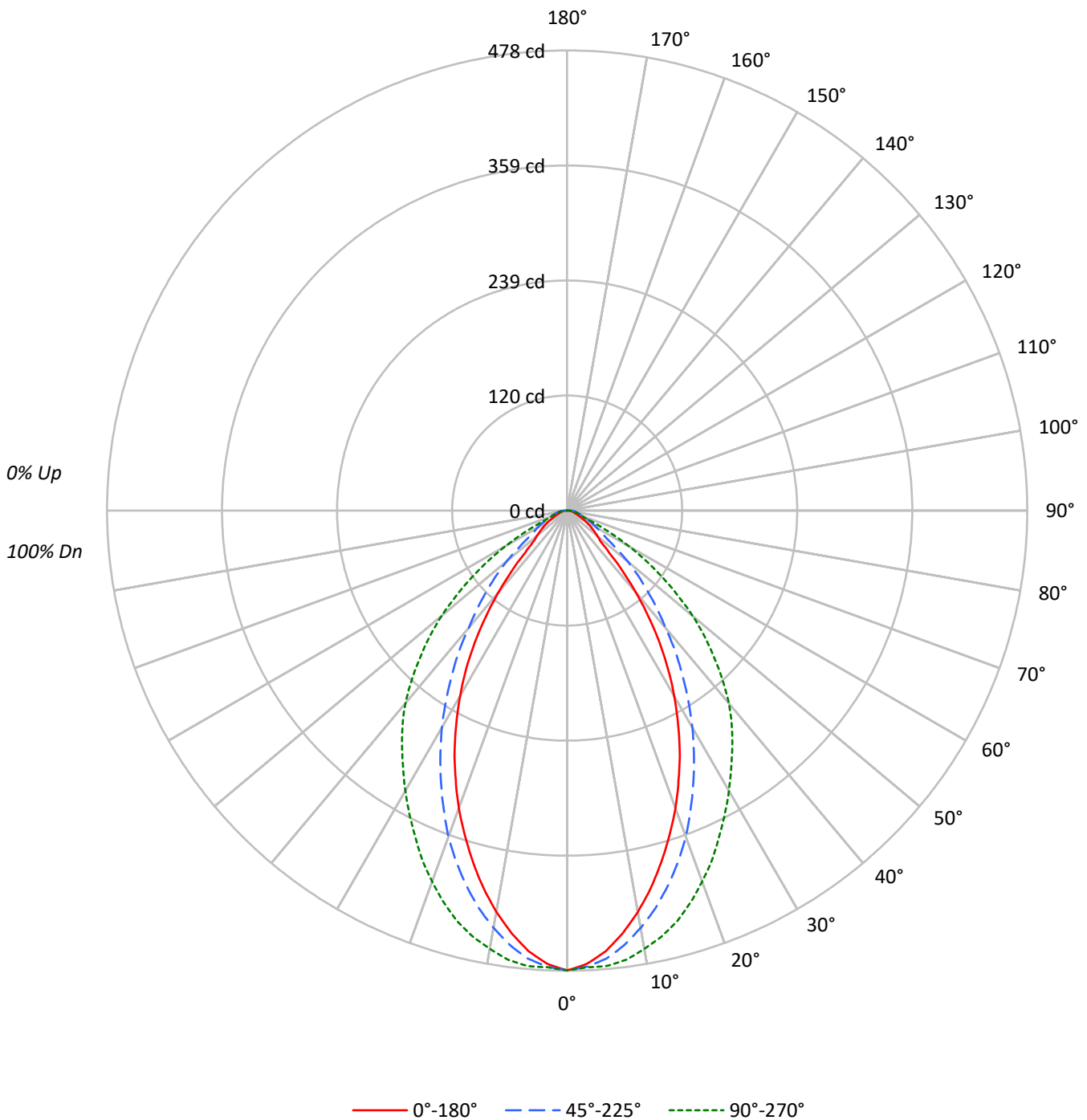
Lumens per Lamp: N/A
Luminaire Lumens: 639.7 lumens
Efficiency: N/A
Efficacy: 32.6 lumens/watt
Spacing Criteria (0/90/45): 0.83 / 1.07 / 0.98
Luminous Opening: Rectangular (W 0.23' x L: 4' x H: 0')
CIE Type: Direct

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: P1059269

CATALOG NUMBER: S123RDRP-S560D840-X4F0-XX-UDD-SVL-S

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	111	108	105	102	109	106	103	100	101	99	97	98	96	94	94	93	91	89
2	104	98	92	88	102	96	91	87	92	88	85	89	86	83	86	84	81	79
3	97	89	82	77	95	87	81	77	84	79	75	82	78	74	79	76	73	71
4	91	81	74	69	88	80	73	68	77	72	67	75	70	66	73	69	66	64
5	85	74	67	61	83	73	66	61	71	65	61	69	64	60	68	63	59	58
6	79	68	61	56	78	67	60	55	66	60	55	64	59	54	63	58	54	52
7	74	63	56	51	73	62	55	50	61	55	50	60	54	50	58	53	49	48
8	70	58	51	46	69	58	51	46	57	50	46	56	50	46	54	49	45	44
9	66	54	47	43	65	54	47	43	53	47	42	52	46	42	51	46	42	40
10	62	51	44	39	61	50	44	39	50	43	39	49	43	39	48	43	39	37

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	5608	5608	5608
5°	5416	5507	5597
10°	5046	5246	5512
15°	4594	4908	5366
20°	4112	4505	5123
25°	3586	4020	4842
30°	3016	3527	4557
35°	2398	2989	4288
40°	1711	2437	4008
45°	1020	1956	3589
50°	751	1491	3107
55°	628	1013	2469
60°	507	836	1736
65°	406	717	931
70°	336	621	573
75°	318	599	540
80°	331	663	521
85°	472	943	660

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°
 Vertical Angle: 45°
 Luminance: 3589 cd/sqm

TEST NUMBER: P1059269

CATALOG NUMBER: S123RDRP-S560D840-X4F0-XX-UDD-SVL-S

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	43.9	6.9
10°-20°	114.0	17.8
20°-30°	145.4	22.7
30°-40°	136.8	21.4
40°-50°	98.3	15.4
50°-60°	56.3	8.8
60°-70°	25.8	4.0
70°-80°	13.0	2.0
80°-90°	6.3	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°	303.2	47.4
0°-40°	440.0	68.8
0°-60°	594.6	93.0
0°-90°	639.7	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	639.7	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	478	478	478	478	478	
5°	460	468	467	471	475	43
15°	378	391	404	425	441	106
25°	277	289	310	344	374	126
35°	167	179	208	256	299	104
45°	61	75	118	174	216	51
55°	31	31	50	91	121	28
65°	15	20	26	29	34	15
75°	7	14	13	12	12	8
85°	4	7	7	6	5	4
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	477.6	477.6	477.6	477.6	477.6
2.5°	471.3	478.3	474.1	474.1	474.8
5°	459.5	468.5	467.2	470.6	474.8
7.5°	442.8	452.5	455.3	463.7	470.6
10°	423.2	434.4	440.0	453.2	462.3
12.5°	401.6	414.2	423.2	440.0	453.2
15°	377.9	391.2	403.7	425.3	441.4
17.5°	353.5	366.8	382.8	407.9	426.7
20°	329.1	342.3	360.5	387.0	410.0
22.5°	302.6	315.9	335.4	365.4	393.2
25°	276.8	289.4	310.3	343.7	373.7
27.5°	249.6	262.2	285.2	321.4	354.9
30°	222.4	235.0	260.1	299.1	336.1
32.5°	195.2	207.1	234.3	277.5	317.2
35°	167.3	179.2	208.5	255.9	299.1
37.5°	138.8	150.6	184.8	236.4	281.0
40°	111.6	124.8	159.0	216.8	261.5
42.5°	85.1	99.0	138.1	195.9	239.2
45°	61.4	74.6	117.8	173.6	216.1
47.5°	46.7	53.7	99.7	151.3	193.8
50°	41.1	41.8	81.6	131.1	170.1
52.5°	35.6	36.3	63.4	111.6	145.0
55°	30.7	31.4	49.5	91.3	120.6
57.5°	25.8	27.2	40.4	72.5	96.9
60°	21.6	24.4	35.6	55.1	73.9
62.5°	17.4	22.3	30.7	40.4	53.0
65°	14.6	20.2	25.8	28.6	33.5
67.5°	11.9	18.8	21.6	20.2	20.2
70°	9.8	16.7	18.1	16.7	16.7
72.5°	8.4	16.0	15.3	13.9	13.9
75°	7.0	13.9	13.2	11.9	11.9
77.5°	6.3	11.9	11.2	10.5	9.8
80°	4.9	9.8	9.8	9.1	7.7
82.5°	4.2	8.4	8.4	7.7	6.3
85°	3.5	7.0	7.0	6.3	4.9
87.5°	2.8	6.3	6.3	5.6	3.5
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	5.98	7.29	6.34	7.61	7.92	13.20	14.52	13.56	14.83	15.14
	3H	7.38	8.55	7.76	8.88	9.24	13.43	14.60	13.81	14.93	15.30
	4H	7.94	9.03	8.34	9.38	9.76	13.54	14.63	13.94	14.98	15.36
	6H	8.40	9.40	8.82	9.77	10.17	13.65	14.65	14.06	15.02	15.41
	8H	8.59	9.54	9.02	9.93	10.33	13.70	14.65	14.13	15.04	15.44
	12H	8.78	9.69	9.21	10.07	10.50	13.75	14.66	14.18	15.04	15.47
4H	2H	7.05	8.14	7.45	8.49	8.87	13.16	14.25	13.56	14.60	14.98
	3H	8.74	9.63	9.15	10.03	10.44	13.53	14.42	13.94	14.82	15.23
	4H	9.57	10.37	10.00	10.79	11.23	13.71	14.51	14.14	14.93	15.37
	6H	10.23	10.92	10.70	11.37	11.84	13.94	14.63	14.40	15.07	15.54
	8H	10.49	11.14	10.96	11.58	12.05	14.04	14.68	14.51	15.13	15.60
	12H	10.75	11.32	11.23	11.80	12.28	14.15	14.73	14.64	15.21	15.68
8H	4H	10.01	10.65	10.47	11.10	11.57	13.75	14.40	14.22	14.85	15.32
	6H	10.96	11.49	11.47	11.99	12.47	14.09	14.62	14.59	15.12	15.60
	8H	11.43	11.91	11.95	12.42	12.92	14.28	14.76	14.80	15.27	15.77
	12H	11.91	12.34	12.43	12.83	13.40	14.52	14.94	15.03	15.43	16.01
12H	4H	10.07	10.64	10.55	11.12	11.59	13.75	14.32	14.23	14.80	15.28
	6H	11.11	11.59	11.63	12.11	12.60	14.12	14.60	14.64	15.11	15.60
	8H	11.71	12.13	12.22	12.63	13.20	14.38	14.80	14.89	15.30	15.87