

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: P1059268

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

Issue Date: 8/7/2025

Test Information

Test Method: LM-79-2024
Report Number: P1059268
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2406-143-29)
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-B
Description: DEFINE 3 BLACK REGRESSED DIRECT RECESSED HOUSING WITH SILVER STRAIGHT BLADE
LOUVER WITH DIFFUSER
CORE LIGHT ENGINE
Light Source: 4000K CCT, 80 CRI LEDS
Ballast/Driver: -

Summary

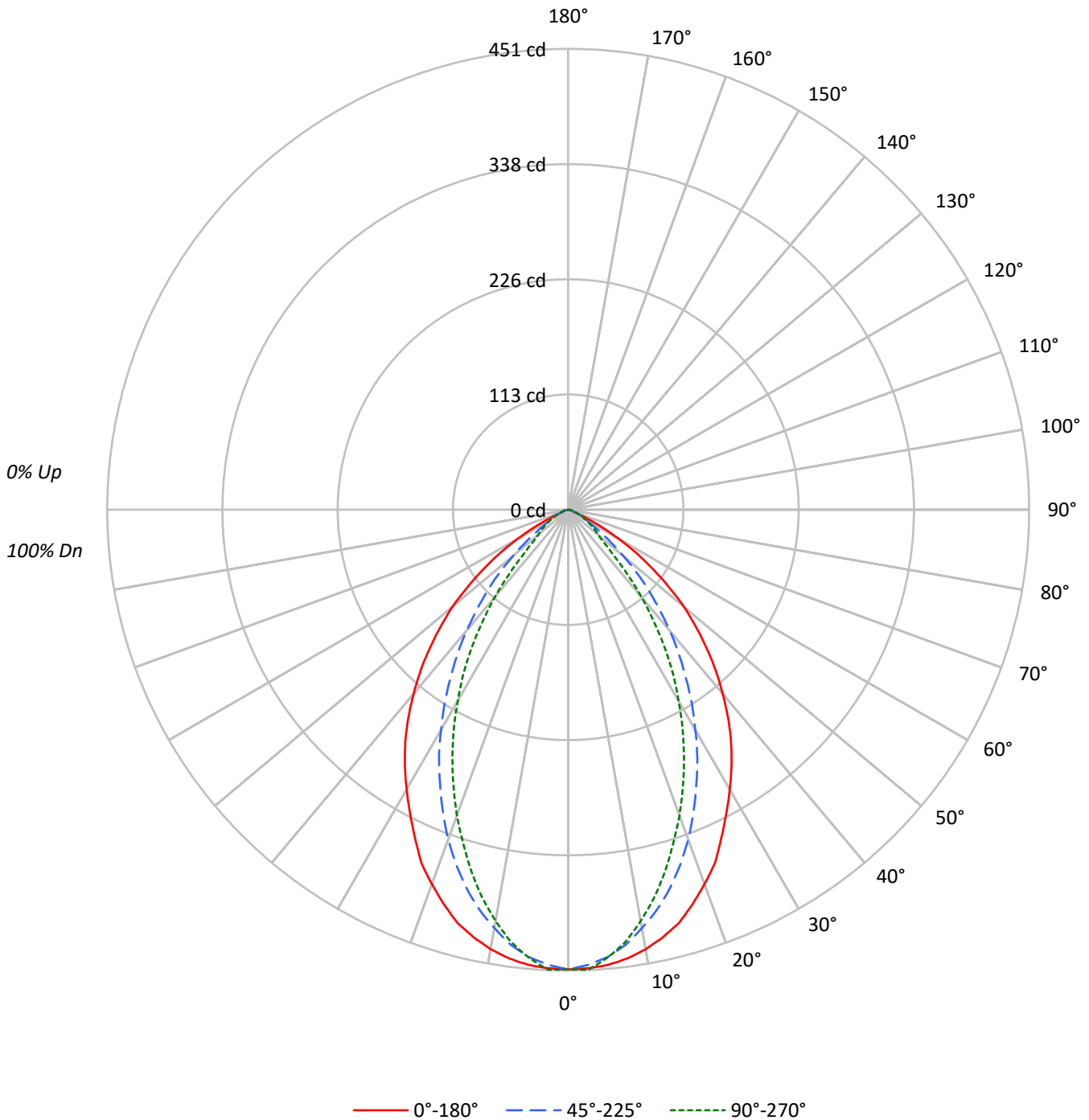
Lumens per Lamp: N/A
Luminaire Lumens: 580.9 lumens
Efficiency: N/A
Efficacy: 29.6 lumens/watt
Spacing Criteria (0/90/45): 1.08 / 0.85 / 0.98
Luminous Opening: Rectangular (W 0.23' x L: 4' x H: 0')
CIE Type: Direct

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: P1059268

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

Luminous Intensity Polar Plot





TEST NUMBER: P1059268

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

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	109	106	103	110	107	104	102	103	100	98	99	97	95	95	94	93	91
2	105	99	94	90	103	97	93	89	94	90	87	91	88	85	88	86	83	82
3	98	90	84	80	96	89	83	79	86	82	78	84	80	76	81	78	75	73
4	92	83	76	71	90	82	75	70	79	74	70	77	73	69	75	71	68	66
5	86	76	69	64	84	75	68	63	73	67	63	71	66	62	70	65	62	60
6	81	70	63	58	79	69	62	58	68	62	57	66	61	57	65	60	56	55
7	76	65	58	53	74	64	57	53	63	57	52	61	56	52	60	55	52	50
8	71	60	53	48	70	60	53	48	58	52	48	57	52	48	56	51	48	46
9	67	56	49	45	66	56	49	44	55	48	44	54	48	44	53	48	44	42
10	64	52	46	41	63	52	46	41	51	45	41	50	45	41	49	44	41	39

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	5283	5283	5283
5°	5271	5181	5189
10°	5207	4958	4874
15°	5089	4666	4454
20°	4873	4291	3977
25°	4593	3844	3475
30°	4287	3372	2927
35°	3984	2876	2357
40°	3608	2370	1708
45°	3180	1838	1030
50°	2698	1284	700
55°	2053	770	586
60°	1341	491	458
65°	561	367	367
70°	192	264	288
75°	159	191	222
80°	95	142	189
85°	94	94	189

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 3180 cd/sqm

TEST NUMBER: P1059268

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

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	41.6	7.2
10°-20°	108.8	18.7
20°-30°	139.5	24.0
30°-40°	130.9	22.5
40°-50°	91.3	15.7
50°-60°	47.2	8.1
60°-70°	16.1	2.8
70°-80°	4.6	0.8
80°-90°	1.0	0.2
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°	289.8	49.9
0°-40°	420.6	72.4
0°-60°	559.1	96.3
0°-90°	580.9	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	580.9	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	450	450	450	450	450	
5°	447	446	440	442	440	42
15°	419	408	384	371	366	117
25°	354	332	297	276	268	163
35°	278	244	201	175	164	173
45°	192	157	111	77	62	147
55°	100	75	38	29	29	90
65°	20	17	13	12	13	24
75°	4	4	4	5	5	4
85°	1	1	1	1	1	1
90°	0	0	0	0	0	



TEST NUMBER: P1059268

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

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	449.9	449.9	449.9	449.9	449.9
2.5°	449.2	449.9	445.8	449.9	450.6
5°	447.2	446.5	439.5	441.6	440.2
7.5°	443.0	440.9	429.7	427.0	427.0
10°	436.7	432.5	415.8	410.9	408.8
12.5°	428.4	422.8	401.2	392.1	388.7
15°	418.6	408.2	383.8	371.2	366.4
17.5°	404.7	390.7	364.3	349.6	342.0
20°	390.0	372.6	343.4	326.0	318.3
22.5°	374.7	353.8	320.4	301.6	293.2
25°	354.5	332.2	296.7	276.5	268.2
27.5°	335.0	311.3	273.7	250.7	242.4
30°	316.2	288.4	248.7	226.4	215.9
32.5°	297.4	266.1	225.0	200.6	190.8
35°	277.9	243.8	200.6	174.8	164.4
37.5°	257.0	222.2	177.6	149.7	137.2
40°	235.4	199.2	154.6	123.3	111.4
42.5°	213.8	178.3	131.6	99.6	85.7
45°	191.5	156.7	110.7	76.6	62.0
47.5°	169.3	135.1	90.5	55.7	46.7
50°	147.7	114.9	70.3	41.1	38.3
52.5°	124.0	95.4	52.9	34.1	33.4
55°	100.3	75.2	37.6	29.3	28.6
57.5°	79.4	58.5	27.2	24.4	23.7
60°	57.1	41.8	20.9	20.2	19.5
62.5°	37.6	28.6	16.7	16.0	16.0
65°	20.2	17.4	13.2	12.5	13.2
67.5°	8.4	9.8	9.8	10.4	10.4
70°	5.6	6.3	7.7	8.4	8.4
72.5°	4.2	4.9	5.6	6.3	6.3
75°	3.5	3.5	4.2	4.9	4.9
77.5°	2.1	2.8	2.8	3.5	4.2
80°	1.4	2.1	2.1	2.8	2.8
82.5°	0.7	1.4	1.4	2.1	2.1
85°	0.7	0.7	0.7	0.7	1.4
87.5°	0.0	0.0	0.0	0.0	0.7
90°	0.0	0.0	0.0	0.0	0.0

TEST NUMBER: P1059268

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

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	12.12	13.37	12.48	13.69	14.00	5.63	6.89	5.99	7.20	7.51
	3H	12.07	13.18	12.45	13.51	13.87	6.40	7.51	6.78	7.84	8.20
	4H	12.02	13.05	12.42	13.40	13.78	6.60	7.63	7.01	7.99	8.37
	6H	11.95	12.89	12.36	13.26	13.66	6.75	7.69	7.16	8.06	8.46
	8H	11.90	12.80	12.34	13.19	13.59	6.79	7.68	7.22	8.07	8.47
	12H	11.86	12.71	12.29	13.10	13.53	6.80	7.66	7.24	8.04	8.47
4H	2H	11.96	12.99	12.36	13.34	13.73	5.88	6.91	6.28	7.26	7.65
	3H	11.95	12.78	12.36	13.19	13.59	6.79	7.62	7.20	8.03	8.43
	4H	11.90	12.64	12.33	13.06	13.50	7.06	7.81	7.50	8.23	8.67
	6H	11.84	12.48	12.30	12.93	13.39	7.28	7.92	7.75	8.37	8.84
	8H	11.79	12.38	12.26	12.83	13.30	7.35	7.94	7.82	8.39	8.86
	12H	11.74	12.27	12.23	12.75	13.23	7.38	7.91	7.87	8.39	8.87
8H	4H	11.78	12.38	12.26	12.83	13.30	7.05	7.64	7.52	8.09	8.56
	6H	11.72	12.21	12.23	12.70	13.19	7.32	7.81	7.83	8.30	8.79
	8H	11.67	12.11	12.20	12.62	13.12	7.43	7.86	7.95	8.38	8.88
	12H	11.63	12.02	12.15	12.51	13.09	7.50	7.89	8.02	8.38	8.96
12H	4H	11.74	12.26	12.23	12.75	13.22	7.01	7.54	7.50	8.02	8.50
	6H	11.66	12.10	12.19	12.62	13.11	7.28	7.72	7.81	8.24	8.73
	8H	11.63	12.02	12.15	12.51	13.09	7.42	7.81	7.94	8.30	8.88