

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: P1059197

Luminaire Tested: S123RDRP-S340D850-X4F0-XX-UDD-SVL-S

Issue Date: 8/7/2025

Test Information

Test Method: LM-79-2024
Report Number: P1059197
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-S340D850-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: 5000K CCT, 80 CRI LEDS
Ballast/Driver: -

Summary

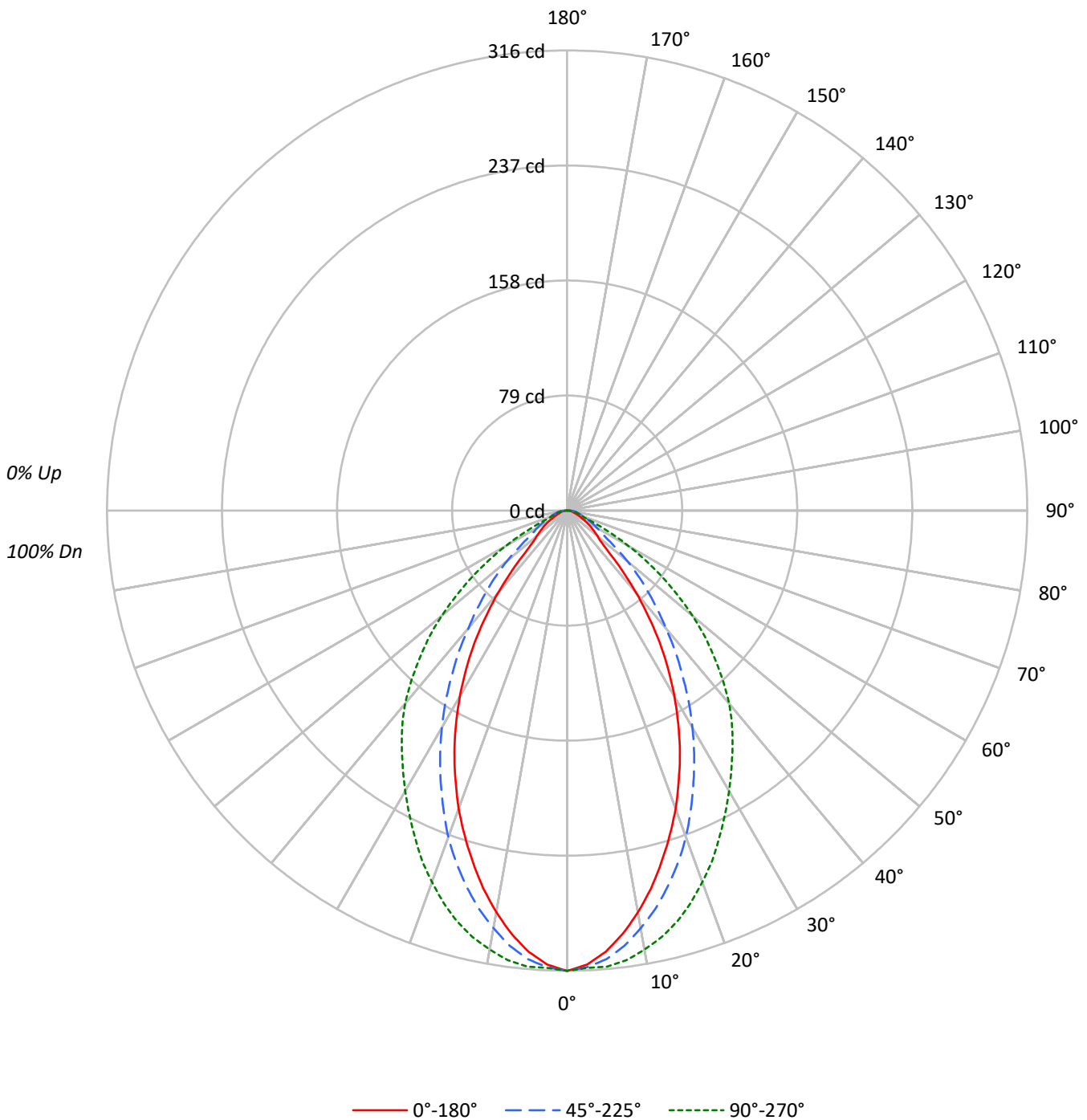
Lumens per Lamp: N/A
Luminaire Lumens: 423.4 lumens
Efficiency: N/A
Efficacy: 33.9 lumens/watt
Spacing Criteria (0/90/45): 0.83 / 1.07 / 0.98
Luminous Opening: Rectangular (W 0.23' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 12.5
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

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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°	3712	3712	3712
5°	3585	3645	3705
10°	3340	3472	3649
15°	3040	3248	3551
20°	2722	2982	3391
25°	2374	2661	3205
30°	1996	2334	3016
35°	1588	1978	2838
40°	1131	1613	2653
45°	674	1295	2376
50°	497	986	2057
55°	416	671	1634
60°	336	552	1148
65°	270	475	617
70°	223	412	381
75°	209	399	354
80°	216	440	345
85°	310	620	431

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°
 Vertical Angle: 45°
 Luminance: 2376 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	29.0	6.9
10°-20°	75.4	17.8
20°-30°	96.2	22.7
30°-40°	90.5	21.4
40°-50°	65.0	15.4
50°-60°	37.3	8.8
60°-70°	17.1	4.0
70°-80°	8.6	2.0
80°-90°	4.2	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°	200.7	47.4
0°-40°	291.2	68.8
0°-60°	393.6	93.0
0°-90°	423.4	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	423.4	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	316	316	316	316	316	
5°	304	310	309	312	314	28
15°	250	259	267	282	292	70
25°	183	192	205	228	247	84
35°	111	119	138	169	198	69
45°	41	49	78	115	143	34
55°	20	21	33	60	80	18
65°	10	13	17	19	22	10
75°	5	9	9	8	8	5
85°	2	5	5	4	3	2
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	316.1	316.1	316.1	316.1	316.1
2.5°	312.0	316.6	313.8	313.8	314.3
5°	304.1	310.1	309.2	311.5	314.3
7.5°	293.1	299.5	301.4	306.9	311.5
10°	280.1	287.5	291.2	300.0	306.0
12.5°	265.8	274.1	280.1	291.2	300.0
15°	250.1	258.9	267.2	281.5	292.1
17.5°	234.0	242.8	253.4	270.0	282.4
20°	217.8	226.6	238.6	256.1	271.4
22.5°	200.3	209.1	222.0	241.8	260.3
25°	183.2	191.5	205.4	227.5	247.4
27.5°	165.2	173.5	188.8	212.8	234.9
30°	147.2	155.5	172.1	198.0	222.4
32.5°	129.2	137.1	155.1	183.7	210.0
35°	110.8	118.6	138.0	169.4	198.0
37.5°	91.8	99.7	122.3	156.5	186.0
40°	73.8	82.6	105.2	143.5	173.1
42.5°	56.3	65.5	91.4	129.7	158.3
45°	40.6	49.4	78.0	114.9	143.1
47.5°	30.9	35.5	66.0	100.1	128.3
50°	27.2	27.7	54.0	86.8	112.6
52.5°	23.5	24.0	42.0	73.8	96.0
55°	20.3	20.8	32.8	60.5	79.8
57.5°	17.1	18.0	26.8	48.0	64.1
60°	14.3	16.2	23.5	36.5	48.9
62.5°	11.5	14.8	20.3	26.8	35.1
65°	9.7	13.4	17.1	18.9	22.2
67.5°	7.8	12.5	14.3	13.4	13.4
70°	6.5	11.1	12.0	11.1	11.1
72.5°	5.5	10.6	10.2	9.2	9.2
75°	4.6	9.2	8.8	7.8	7.8
77.5°	4.2	7.8	7.4	6.9	6.5
80°	3.2	6.5	6.5	6.0	5.1
82.5°	2.8	5.5	5.5	5.1	4.2
85°	2.3	4.6	4.6	4.2	3.2
87.5°	1.8	4.2	4.2	3.7	2.3
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	4.54	5.86	4.91	6.18	6.49	11.76	13.08	12.13	13.39	13.71
	3H	5.95	7.12	6.33	7.45	7.81	12.00	13.17	12.38	13.50	13.86
	4H	6.50	7.59	6.91	7.94	8.33	12.11	13.20	12.51	13.55	13.93
	6H	6.96	7.97	7.38	8.34	8.73	12.21	13.22	12.63	13.59	13.98
	8H	7.15	8.10	7.58	8.49	8.90	12.26	13.21	12.69	13.60	14.01
	12H	7.34	8.25	7.77	8.63	9.06	12.32	13.22	12.75	13.61	14.04
4H	2H	5.62	6.71	6.02	7.06	7.44	11.73	12.82	12.13	13.17	13.55
	3H	7.31	8.20	7.72	8.61	9.01	12.10	12.99	12.51	13.39	13.80
	4H	8.14	8.94	8.57	9.36	9.80	12.28	13.07	12.71	13.49	13.94
	6H	8.80	9.49	9.26	9.93	10.40	12.50	13.19	12.96	13.64	14.10
	8H	9.05	9.70	9.52	10.14	10.62	12.60	13.25	13.07	13.70	14.17
	12H	9.31	9.88	9.79	10.36	10.84	12.72	13.29	13.21	13.77	14.25
8H	4H	8.57	9.22	9.04	9.67	10.14	12.32	12.97	12.79	13.41	13.89
	6H	9.53	10.06	10.03	10.55	11.04	12.66	13.19	13.16	13.68	14.16
	8H	9.99	10.47	10.51	10.98	11.47	12.85	13.32	13.37	13.84	14.33
	12H	10.47	10.89	10.98	11.38	11.95	13.08	13.51	13.60	14.00	14.57
12H	4H	8.63	9.21	9.12	9.69	10.16	12.31	12.89	12.80	13.37	13.84
	6H	9.68	10.15	10.20	10.67	11.16	12.68	13.16	13.20	13.67	14.17
	8H	10.26	10.69	10.78	11.18	11.75	12.94	13.37	13.46	13.86	14.43