

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: P1059194

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

Issue Date: 8/7/2025

Test Information

Test Method: LM-79-2024
Report Number: P1059194
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2406-143-69)
Test Lab: INNOVATION CENTER
Issue Date: 8/7/2025
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: NEO-RAY
Catalog Number: S123RDRP-S340D850-X4F0-XX-UDD-BVL-S
Description: DEFINE 3 SILVER REGRESSED DIRECT RECESSED HOUSING WITH BLACK STRAIGHT BLADE
LOUVER WITH DIFFUSER
CORE LIGHT ENGINE
Light Source: 5000K CCT, 80 CRI LEDS
Ballast/Driver: -

Summary

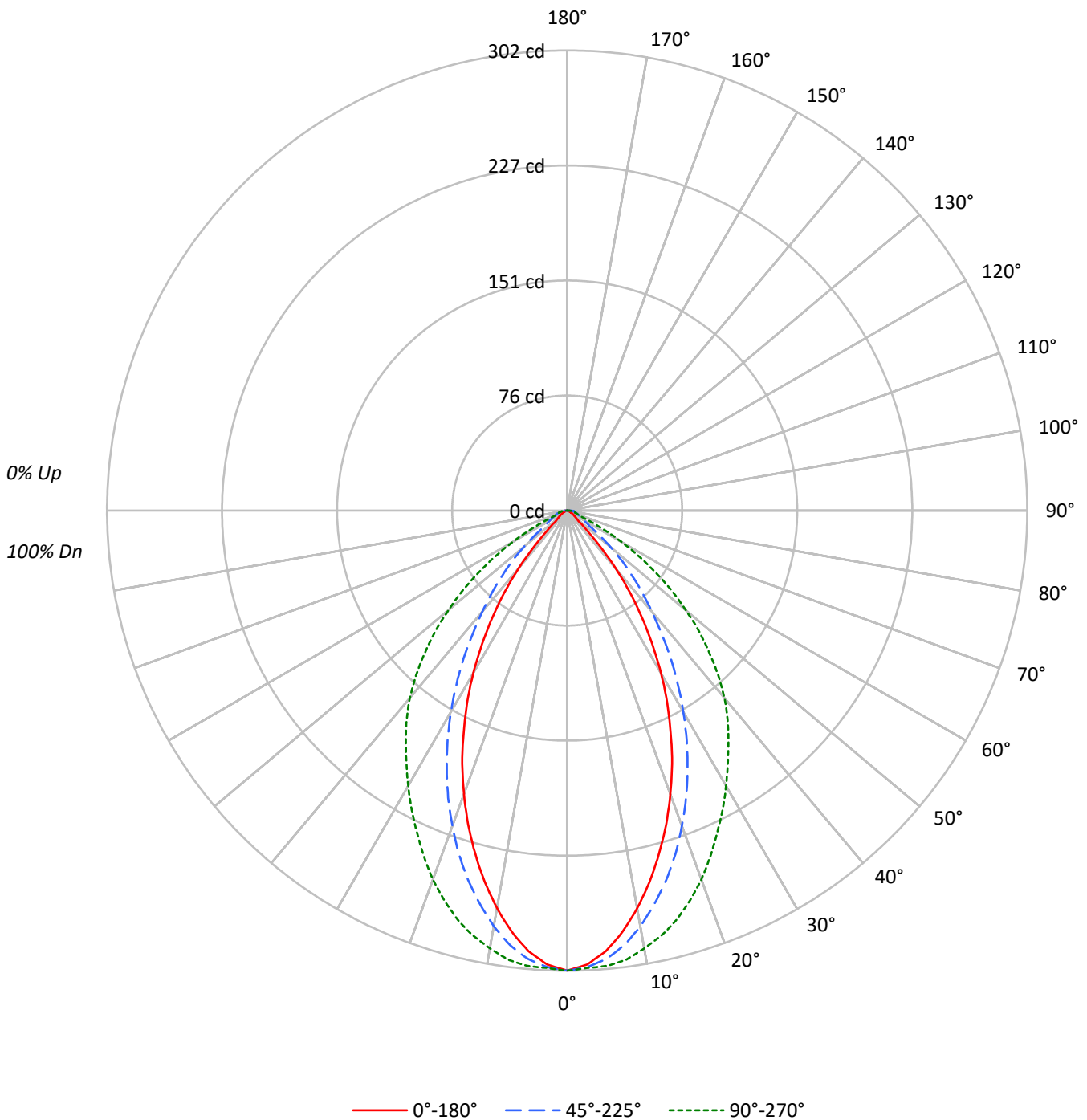
Lumens per Lamp: N/A
Luminaire Lumens: 362.6 lumens
Efficiency: N/A
Efficacy: 29.0 lumens/watt
Spacing Criteria (0/90/45): 0.79 / 1.06 / 0.94
Luminous Opening: Rectangular (W 0.23' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 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	112	108	105	102	109	106	103	101	102	100	98	98	96	95	95	93	92	90
2	105	99	94	89	102	97	92	88	94	90	86	90	87	85	88	85	83	81
3	98	90	84	79	96	89	83	78	86	81	77	83	79	76	81	78	75	73
4	92	83	76	71	90	81	75	70	79	74	69	77	72	69	75	71	68	66
5	86	76	69	64	84	75	68	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	64	58	53	63	57	53	62	56	52	61	56	52	50
8	72	61	54	49	70	60	53	49	59	53	48	58	52	48	57	52	48	46
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	41	40

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	3545	3545	3545
5°	3422	3482	3536
10°	3160	3303	3478
15°	2834	3053	3378
20°	2474	2752	3219
25°	2081	2422	3020
30°	1670	2065	2828
35°	1224	1700	2646
40°	757	1323	2462
45°	291	996	2192
50°	142	683	1856
55°	113	379	1456
60°	75	315	975
65°	64	283	436
70°	62	254	254
75°	82	272	250
80°	122	345	284
85°	189	566	377

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°
 Vertical Angle: 45°
 Luminance: 2192 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	27.7	7.6
10°-20°	70.9	19.5
20°-30°	87.9	24.3
30°-40°	78.8	21.7
40°-50°	51.8	14.3
50°-60°	26.0	7.2
60°-70°	10.2	2.8
70°-80°	5.7	1.6
80°-90°	3.6	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°	186.5	51.4
0°-40°	265.3	73.2
0°-60°	343.0	94.6
0°-90°	362.6	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	362.6	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	302	302	302	302	302	
5°	290	295	295	297	300	27
15°	233	240	251	268	278	65
25°	161	171	187	213	233	73
35°	85	97	119	155	185	53
45°	18	29	60	101	132	17
55°	6	6	18	50	71	5
65°	2	6	10	13	16	2
75°	2	6	6	6	6	2
85°	1	4	4	4	3	1
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	301.9	301.9	301.9	301.9	301.9
2.5°	298.2	302.3	300.0	300.0	300.5
5°	290.3	295.0	295.4	297.3	300.0
7.5°	278.8	284.8	287.6	293.1	297.3
10°	265.0	271.4	277.0	286.7	291.7
12.5°	249.7	256.2	264.5	277.9	285.7
15°	233.1	240.5	251.1	268.2	277.9
17.5°	216.0	223.4	236.3	255.7	268.2
20°	198.0	206.3	220.2	242.3	257.6
22.5°	180.0	189.3	204.0	228.0	245.6
25°	160.6	170.8	186.9	213.3	233.1
27.5°	142.2	152.8	169.9	198.5	221.1
30°	123.2	133.9	152.3	183.3	208.6
32.5°	103.9	115.9	135.2	168.9	196.2
35°	85.4	96.9	118.6	155.1	184.6
37.5°	67.4	78.9	101.6	141.7	173.1
40°	49.4	61.4	86.3	128.8	160.6
42.5°	32.3	44.8	72.9	115.9	146.8
45°	17.5	29.1	60.0	101.1	132.0
47.5°	9.7	15.7	48.5	87.2	117.7
50°	7.8	8.8	37.4	74.3	101.6
52.5°	6.5	7.4	26.8	61.9	86.8
55°	5.5	6.5	18.5	49.9	71.1
57.5°	4.6	5.5	14.8	38.3	55.9
60°	3.2	5.5	13.4	28.2	41.5
62.5°	2.8	5.5	11.5	19.4	27.7
65°	2.3	6.5	10.2	12.9	15.7
67.5°	1.8	6.5	8.8	8.3	8.3
70°	1.8	6.5	7.4	6.9	7.4
72.5°	1.8	6.9	6.9	6.5	6.5
75°	1.8	6.0	6.0	5.5	5.5
77.5°	1.8	5.5	5.5	5.1	5.1
80°	1.8	5.1	5.1	4.6	4.2
82.5°	1.8	4.6	4.6	4.2	3.7
85°	1.4	4.2	4.2	4.2	2.8
87.5°	1.4	3.7	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	0.00	0.00	0.00	0.00	0.00	10.94	12.20	11.31	12.51	12.83
	3H	0.00	0.47	0.00	0.80	1.16	11.02	12.13	11.40	12.46	12.83
	4H	0.51	1.54	0.91	1.89	2.28	11.08	12.12	11.49	12.47	12.86
	6H	1.54	2.49	1.96	2.86	3.26	11.18	12.13	11.60	12.51	12.90
	8H	2.07	2.97	2.50	3.36	3.77	11.25	12.14	11.68	12.54	12.94
	12H	2.56	3.42	2.99	3.80	4.23	11.32	12.18	11.75	12.56	12.99
4H	2H	0.11	1.15	0.52	1.50	1.89	10.80	11.84	11.21	12.19	12.58
	3H	2.58	3.42	2.99	3.83	4.23	10.98	11.82	11.39	12.23	12.63
	4H	3.91	4.67	4.35	5.09	5.54	11.10	11.86	11.54	12.28	12.72
	6H	5.04	5.69	5.50	6.14	6.60	11.32	11.98	11.79	12.42	12.89
	8H	5.54	6.15	6.01	6.60	7.07	11.45	12.06	11.92	12.51	12.98
	12H	6.00	6.54	6.49	7.02	7.50	11.61	12.15	12.10	12.63	13.11
8H	4H	4.83	5.44	5.30	5.89	6.36	11.11	11.72	11.58	12.16	12.64
	6H	6.43	6.93	6.93	7.42	7.91	11.44	11.94	11.94	12.44	12.92
	8H	7.25	7.70	7.77	8.21	8.71	11.67	12.12	12.19	12.64	13.13
	12H	8.04	8.44	8.55	8.93	9.50	12.00	12.40	12.52	12.90	13.47
12H	4H	5.00	5.54	5.48	6.02	6.50	11.10	11.63	11.58	12.12	12.59
	6H	6.74	7.19	7.27	7.71	8.20	11.47	11.92	11.99	12.44	12.93
	8H	7.75	8.15	8.26	8.64	9.22	11.78	12.18	12.30	12.68	13.25