

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: P1059167

Luminaire Tested: S123RDRP-S340D830-X4F0-XX-UDD-BVL-S

Issue Date: 8/7/2025

Test Information

Test Method: LM-79-2024
Report Number: P1059167
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-S340D830-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: 3000K CCT, 80 CRI LEDS
Ballast/Driver: -

Summary

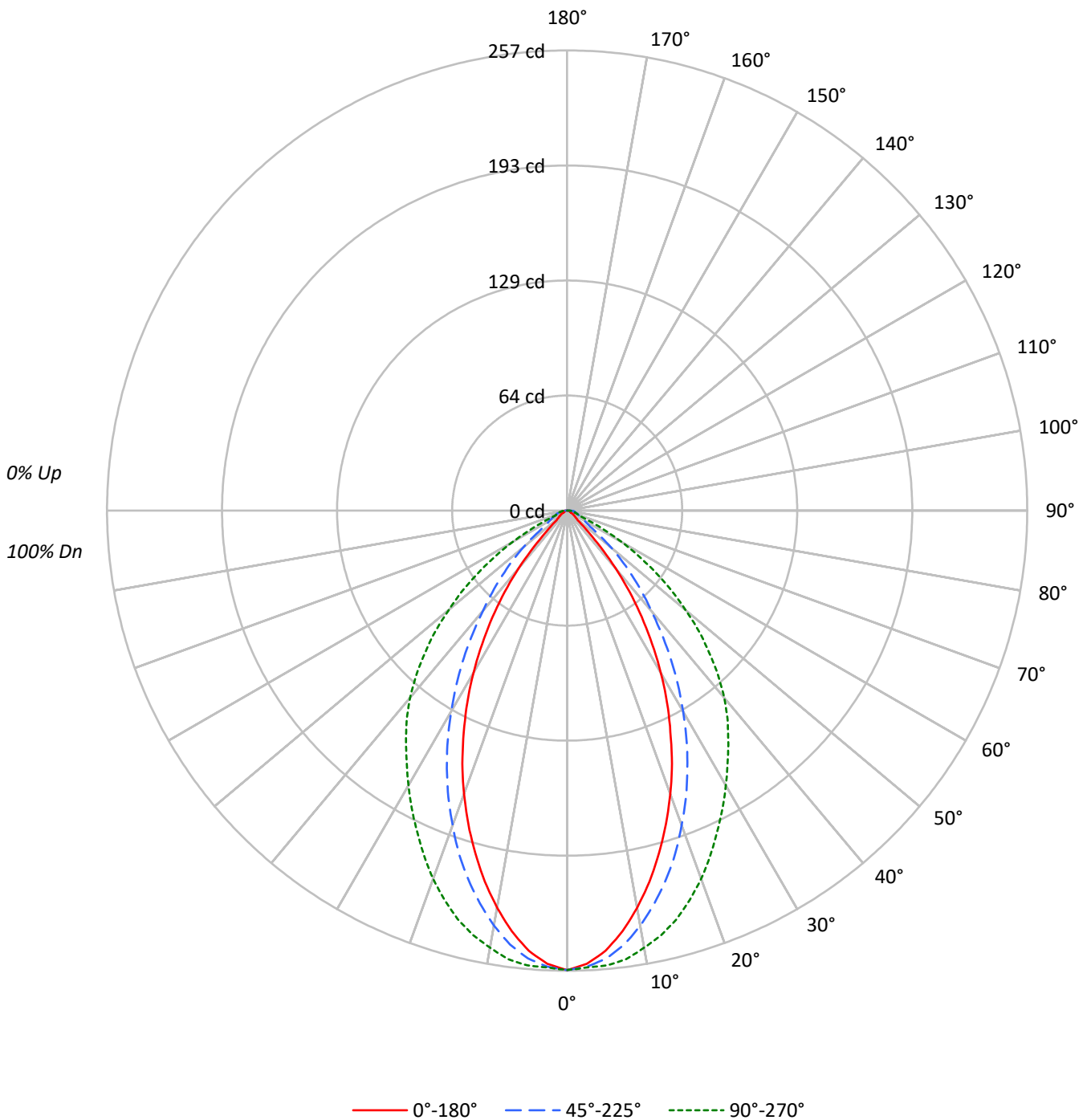
Lumens per Lamp: N/A
Luminaire Lumens: 308.2 lumens
Efficiency: N/A
Efficacy: 24.7 lumens/watt
Spacing Criteria (0/90/45): 0.79 / 1.06 / 0.94
Luminous Opening: Rectangular (W 0.23' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 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°	3013	3013	3013
5°	2909	2960	3006
10°	2685	2807	2956
15°	2408	2594	2871
20°	2103	2338	2735
25°	1769	2059	2567
30°	1420	1756	2404
35°	1041	1445	2249
40°	644	1125	2092
45°	247	847	1863
50°	122	581	1577
55°	96	321	1237
60°	63	268	829
65°	56	239	370
70°	55	216	216
75°	73	231	213
80°	108	291	237
85°	162	472	323

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°
 Vertical Angle: 45°
 Luminance: 1863 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	23.5	7.6
10°-20°	60.2	19.5
20°-30°	74.7	24.3
30°-40°	67.0	21.7
40°-50°	44.0	14.3
50°-60°	22.1	7.2
60°-70°	8.7	2.8
70°-80°	4.9	1.6
80°-90°	3.1	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°	158.5	51.4
0°-40°	225.5	73.2
0°-60°	291.6	94.6
0°-90°	308.2	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	308.2	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	257	257	257	257	257	
5°	247	251	251	253	255	23
15°	198	204	213	228	236	55
25°	136	145	159	181	198	62
35°	73	82	101	132	157	45
45°	15	25	51	86	112	14
55°	5	6	16	42	60	4
65°	2	6	9	11	13	2
75°	2	5	5	5	5	2
85°	1	4	4	4	2	1
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	256.6	256.6	256.6	256.6	256.6
2.5°	253.4	257.0	255.0	255.0	255.4
5°	246.8	250.7	251.1	252.7	255.0
7.5°	237.0	242.1	244.4	249.1	252.7
10°	225.2	230.7	235.4	243.6	247.9
12.5°	212.2	217.7	224.8	236.2	242.8
15°	198.1	204.4	213.4	227.9	236.2
17.5°	183.6	189.9	200.9	217.3	227.9
20°	168.3	175.4	187.1	206.0	218.9
22.5°	153.0	160.8	173.4	193.8	208.7
25°	136.5	145.2	158.9	181.2	198.1
27.5°	120.8	129.9	144.4	168.7	187.9
30°	104.7	113.8	129.5	155.7	177.3
32.5°	88.3	98.5	114.9	143.6	166.7
35°	72.6	82.4	100.8	131.8	156.9
37.5°	57.3	67.1	86.3	120.4	147.1
40°	42.0	52.2	73.4	109.5	136.5
42.5°	27.5	38.1	62.0	98.5	124.8
45°	14.9	24.7	51.0	85.9	112.2
47.5°	8.2	13.3	41.2	74.1	100.0
50°	6.7	7.5	31.8	63.2	86.3
52.5°	5.5	6.3	22.8	52.6	73.8
55°	4.7	5.5	15.7	42.4	60.4
57.5°	3.9	4.7	12.6	32.6	47.5
60°	2.7	4.7	11.4	23.9	35.3
62.5°	2.4	4.7	9.8	16.5	23.5
65°	2.0	5.5	8.6	11.0	13.3
67.5°	1.6	5.5	7.5	7.1	7.1
70°	1.6	5.5	6.3	5.9	6.3
72.5°	1.6	5.9	5.9	5.5	5.5
75°	1.6	5.1	5.1	4.7	4.7
77.5°	1.6	4.7	4.7	4.3	4.3
80°	1.6	4.3	4.3	3.9	3.5
82.5°	1.6	3.9	3.9	3.5	3.1
85°	1.2	3.5	3.5	3.5	2.4
87.5°	1.2	3.1	3.5	3.1	2.0
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	10.38	11.64	10.75	11.95	12.27
	3H	0.00	0.00	0.00	0.27	0.63	10.46	11.58	10.85	11.91	12.27
	4H	0.00	1.04	0.41	1.39	1.78	10.53	11.56	10.93	11.91	12.30
	6H	1.07	2.02	1.48	2.39	2.78	10.62	11.57	11.04	11.95	12.34
	8H	1.61	2.51	2.04	2.90	3.31	10.68	11.58	11.11	11.97	12.38
	12H	2.10	2.96	2.53	3.34	3.77	10.75	11.61	11.18	11.99	12.43
4H	2H	0.00	0.57	0.00	0.92	1.30	10.24	11.28	10.65	11.63	12.01
	3H	2.02	2.86	2.43	3.27	3.67	10.42	11.27	10.83	11.67	12.07
	4H	3.37	4.12	3.80	4.54	4.99	10.55	11.30	10.98	11.72	12.17
	6H	4.50	5.15	4.96	5.60	6.07	10.76	11.41	11.22	11.86	12.33
	8H	5.01	5.62	5.48	6.07	6.54	10.88	11.49	11.35	11.94	12.41
	12H	5.47	6.01	5.96	6.50	6.97	11.04	11.58	11.53	12.06	12.54
8H	4H	4.28	4.89	4.75	5.34	5.81	10.55	11.16	11.02	11.61	12.08
	6H	5.88	6.38	6.38	6.87	7.36	10.87	11.37	11.38	11.87	12.35
	8H	6.70	7.15	7.22	7.67	8.16	11.10	11.55	11.62	12.06	12.56
	12H	7.48	7.88	7.99	8.37	8.94	11.42	11.82	11.94	12.32	12.89
12H	4H	4.44	4.98	4.93	5.47	5.94	10.54	11.08	11.03	11.56	12.04
	6H	6.19	6.64	6.71	7.15	7.65	10.90	11.35	11.43	11.87	12.36
	8H	7.19	7.59	7.71	8.09	8.66	11.21	11.61	11.72	12.10	12.67