

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: P1059176

Luminaire Tested: S123RDRP-S340D835-X4F0-XX-UDD-BVL-S

Issue Date: 8/7/2025

Test Information

Test Method: LM-79-2024
Report Number: P1059176
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-S340D835-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: 3500K CCT, 80 CRI LEDS
Ballast/Driver: -

Summary

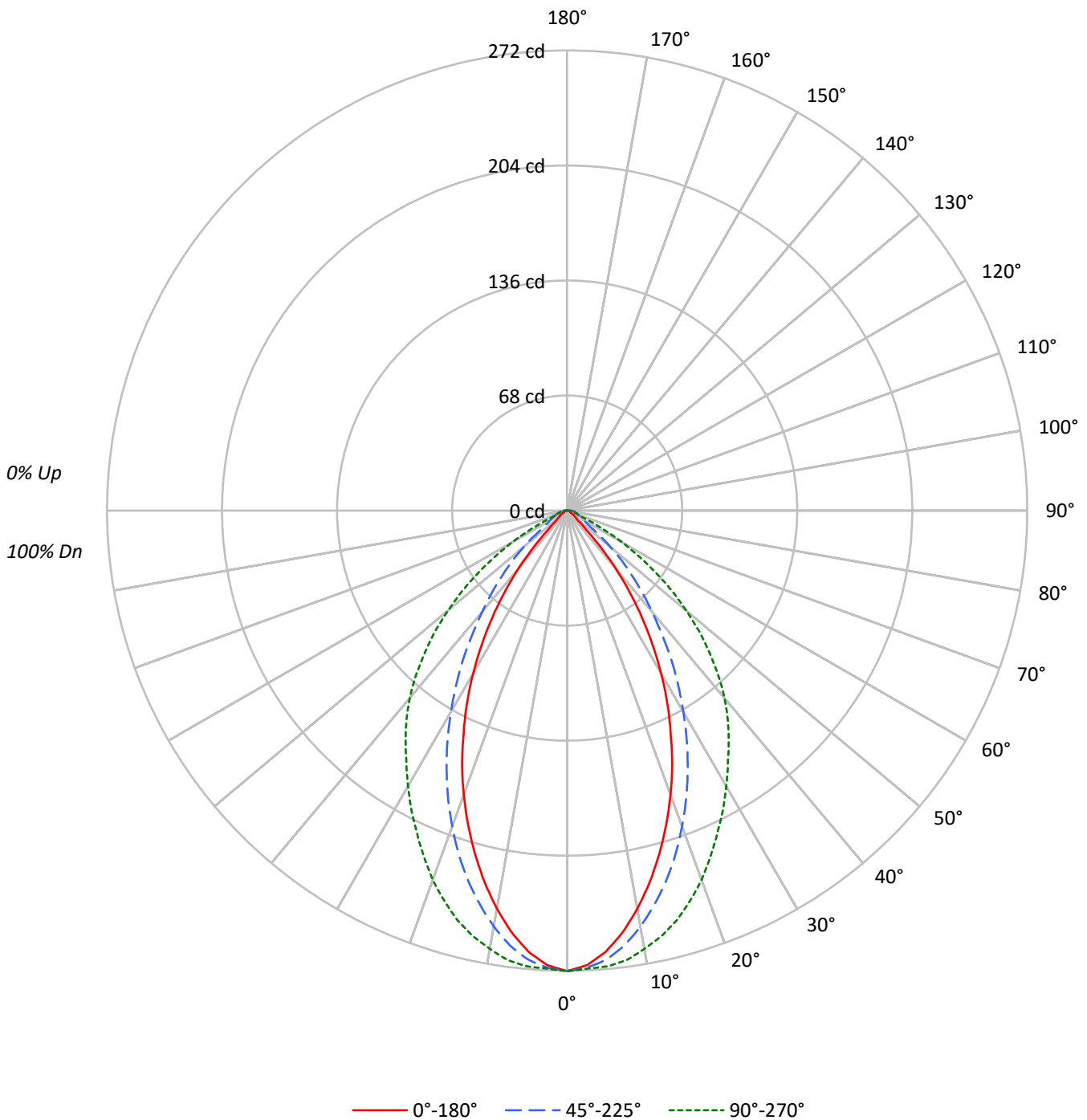
Lumens per Lamp: N/A
Luminaire Lumens: 327.0 lumens
Efficiency: N/A
Efficacy: 26.2 lumens/watt
Spacing Criteria (0/90/45): 0.79 / 1.06 / 0.94
Luminous Opening: Rectangular (W 0.23' x L: 4' x H: 0')
CIE Type: Direct

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°	3196	3196	3196
5°	3086	3140	3188
10°	2849	2977	3137
15°	2555	2752	3046
20°	2232	2480	2903
25°	1876	2184	2723
30°	1506	1863	2550
35°	1104	1534	2387
40°	682	1193	2220
45°	262	898	1976
50°	130	616	1673
55°	102	340	1312
60°	68	284	881
65°	58	256	395
70°	58	230	230
75°	77	245	227
80°	115	311	250
85°	162	498	337

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°
 Vertical Angle: 45°
 Luminance: 1976 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	25.0	7.6
10°-20°	63.9	19.5
20°-30°	79.3	24.3
30°-40°	71.1	21.7
40°-50°	46.7	14.3
50°-60°	23.4	7.2
60°-70°	9.2	2.8
70°-80°	5.2	1.6
80°-90°	3.2	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°	168.2	51.4
0°-40°	239.2	73.2
0°-60°	309.3	94.6
0°-90°	327.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	327.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	272	272	272	272	272	
5°	262	266	266	268	270	24
15°	210	217	226	242	251	59
25°	145	154	169	192	210	66
35°	77	87	107	140	166	48
45°	16	26	54	91	119	15
55°	5	6	17	45	64	4
65°	2	6	9	12	14	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°	272.2	272.2	272.2	272.2	272.2
2.5°	268.9	272.6	270.5	270.5	271.0
5°	261.8	266.0	266.4	268.1	270.5
7.5°	251.4	256.8	259.3	264.3	268.1
10°	238.9	244.7	249.7	258.5	263.1
12.5°	225.2	231.0	238.5	250.6	257.6
15°	210.2	216.9	226.4	241.8	250.6
17.5°	194.8	201.5	213.1	230.6	241.8
20°	178.6	186.1	198.5	218.5	232.3
22.5°	162.3	170.7	184.0	205.6	221.4
25°	144.8	154.0	168.6	192.3	210.2
27.5°	128.2	137.8	153.2	179.0	199.4
30°	111.1	120.7	137.4	165.2	188.1
32.5°	93.7	104.5	122.0	152.3	176.9
35°	77.0	87.4	107.0	139.9	166.5
37.5°	60.8	71.2	91.6	127.8	156.1
40°	44.5	55.4	77.8	116.1	144.8
42.5°	29.1	40.4	65.8	104.5	132.4
45°	15.8	26.2	54.1	91.2	119.0
47.5°	8.7	14.2	43.7	78.7	106.1
50°	7.1	7.9	33.7	67.0	91.6
52.5°	5.8	6.7	24.1	55.8	78.3
55°	5.0	5.8	16.6	45.0	64.1
57.5°	4.2	5.0	13.3	34.5	50.4
60°	2.9	5.0	12.1	25.4	37.5
62.5°	2.5	5.0	10.4	17.5	25.0
65°	2.1	5.8	9.2	11.7	14.2
67.5°	1.7	5.8	7.9	7.5	7.5
70°	1.7	5.8	6.7	6.2	6.7
72.5°	1.7	6.2	6.2	5.8	5.8
75°	1.7	5.4	5.4	5.0	5.0
77.5°	1.7	5.0	5.0	4.6	4.6
80°	1.7	4.6	4.6	4.2	3.7
82.5°	1.7	4.2	4.2	3.7	3.3
85°	1.2	3.7	3.7	3.7	2.5
87.5°	1.2	3.3	3.7	3.3	2.1
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	10.58	11.84	10.94	12.15	12.46
	3H	0.00	0.14	0.00	0.47	0.84	10.66	11.77	11.04	12.10	12.47
	4H	0.20	1.24	0.61	1.59	1.97	10.72	11.76	11.12	12.11	12.49
	6H	1.27	2.22	1.69	2.59	2.99	10.82	11.77	11.24	12.14	12.54
	8H	1.82	2.72	2.26	3.11	3.52	10.88	11.78	11.31	12.17	12.57
	12H	2.29	3.15	2.72	3.53	3.96	10.95	11.81	11.38	12.19	12.62
4H	2H	0.00	0.82	0.18	1.17	1.55	10.44	11.47	10.84	11.83	12.21
	3H	2.22	3.07	2.64	3.48	3.88	10.61	11.46	11.03	11.86	12.27
	4H	3.57	4.32	4.00	4.75	5.19	10.74	11.50	11.18	11.92	12.36
	6H	4.71	5.37	5.18	5.81	6.28	10.96	11.61	11.42	12.06	12.53
	8H	5.23	5.85	5.70	6.29	6.76	11.08	11.69	11.55	12.14	12.61
	12H	5.68	6.22	6.17	6.70	7.18	11.24	11.78	11.73	12.26	12.74
8H	4H	4.48	5.09	4.95	5.54	6.01	10.74	11.36	11.21	11.80	12.27
	6H	6.10	6.60	6.60	7.10	7.58	11.08	11.58	11.58	12.08	12.56
	8H	6.93	7.39	7.46	7.90	8.39	11.30	11.75	11.82	12.27	12.76
	12H	7.70	8.10	8.21	8.59	9.16	11.62	12.02	12.14	12.52	13.09
12H	4H	4.65	5.19	5.14	5.68	6.15	10.73	11.27	11.22	11.76	12.23
	6H	6.42	6.87	6.94	7.38	7.88	11.11	11.56	11.63	12.08	12.57
	8H	7.43	7.83	7.95	8.33	8.90	11.41	11.81	11.93	12.31	12.88