

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: P1059221

Luminaire Tested: S123RDRP-S340D935-X4F0-XX-UDD-BVL-S

Issue Date: 8/7/2025

Test Information

Test Method: LM-79-2024
Report Number: P1059221
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-S340D935-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, 90 CRI LEDS
Ballast/Driver: -

Summary

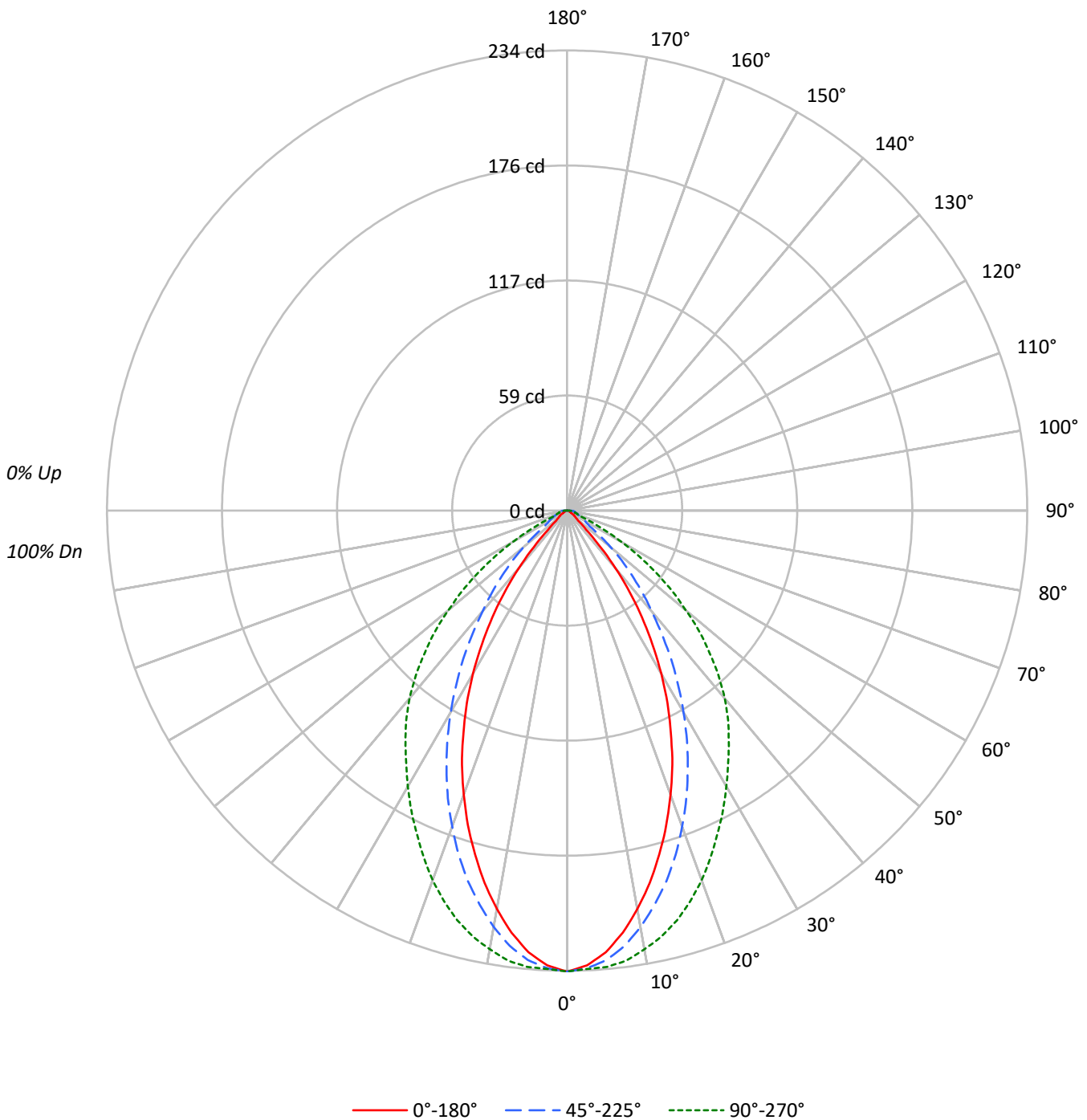
Lumens per Lamp: N/A
Luminaire Lumens: 281.5 lumens
Efficiency: N/A
Efficacy: 22.5 lumens/watt
Spacing Criteria (0/90/45): 0.79 / 1.06 / 0.94
Luminous Opening: Rectangular (W 0.23' x L: 4' x H: 0')
CIE Type: Direct

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	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°	2752	2752	2752
5°	2657	2704	2745
10°	2453	2564	2701
15°	2200	2371	2622
20°	1921	2136	2499
25°	1616	1880	2345
30°	1298	1604	2197
35°	950	1320	2054
40°	587	1027	1911
45°	226	774	1702
50°	111	530	1440
55°	88	293	1130
60°	59	244	759
65°	50	220	339
70°	48	196	196
75°	64	213	195
80°	95	264	216
85°	148	431	296

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°
 Vertical Angle: 45°
 Luminance: 1702 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	21.5	7.6
10°-20°	55.0	19.5
20°-30°	68.3	24.3
30°-40°	61.2	21.7
40°-50°	40.2	14.3
50°-60°	20.1	7.2
60°-70°	8.0	2.8
70°-80°	4.4	1.6
80°-90°	2.8	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°	144.8	51.4
0°-40°	206.0	73.2
0°-60°	266.3	94.6
0°-90°	281.5	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	281.5	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	234	234	234	234	234	
5°	225	229	229	231	233	21
15°	181	187	195	208	216	50
25°	125	133	145	166	181	57
35°	66	75	92	120	143	41
45°	14	23	47	78	102	13
55°	4	5	14	39	55	4
65°	2	5	8	10	12	2
75°	1	5	5	4	4	1
85°	1	3	3	3	2	1
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	234.4	234.4	234.4	234.4	234.4
2.5°	231.5	234.7	232.9	232.9	233.3
5°	225.4	229.0	229.4	230.8	232.9
7.5°	216.5	221.1	223.3	227.6	230.8
10°	205.7	210.7	215.0	222.6	226.5
12.5°	193.9	198.9	205.3	215.7	221.8
15°	181.0	186.7	195.0	208.2	215.7
17.5°	167.7	173.5	183.5	198.5	208.2
20°	153.7	160.2	170.9	188.1	200.0
22.5°	139.8	146.9	158.4	177.0	190.7
25°	124.7	132.6	145.1	165.6	181.0
27.5°	110.4	118.6	131.9	154.1	171.7
30°	95.7	103.9	118.3	142.3	162.0
32.5°	80.6	90.0	105.0	131.2	152.3
35°	66.3	75.3	92.1	120.4	143.3
37.5°	52.3	61.3	78.8	110.0	134.4
40°	38.3	47.7	67.0	100.0	124.7
42.5°	25.1	34.8	56.6	90.0	114.0
45°	13.6	22.6	46.6	78.5	102.5
47.5°	7.5	12.2	37.6	67.7	91.4
50°	6.1	6.8	29.0	57.7	78.8
52.5°	5.0	5.7	20.8	48.0	67.4
55°	4.3	5.0	14.3	38.7	55.2
57.5°	3.6	4.3	11.5	29.7	43.4
60°	2.5	4.3	10.4	21.9	32.3
62.5°	2.2	4.3	9.0	15.1	21.5
65°	1.8	5.0	7.9	10.0	12.2
67.5°	1.4	5.0	6.8	6.5	6.5
70°	1.4	5.0	5.7	5.4	5.7
72.5°	1.4	5.4	5.4	5.0	5.0
75°	1.4	4.7	4.7	4.3	4.3
77.5°	1.4	4.3	4.3	3.9	3.9
80°	1.4	3.9	3.9	3.6	3.2
82.5°	1.4	3.6	3.6	3.2	2.9
85°	1.1	3.2	3.2	3.2	2.2
87.5°	1.1	2.9	3.2	2.9	1.8
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	10.06	11.32	10.42	11.63	11.94
	3H	0.00	0.00	0.00	0.00	0.28	10.14	11.25	10.52	11.58	11.95
	4H	0.00	0.68	0.04	1.03	1.41	10.20	11.24	10.61	11.59	11.97
	6H	0.67	1.62	1.09	1.99	2.39	10.30	11.25	10.71	11.62	12.01
	8H	1.20	2.10	1.63	2.49	2.90	10.36	11.26	10.79	11.65	12.06
	12H	1.69	2.55	2.13	2.94	3.37	10.43	11.29	10.87	11.67	12.11
4H	2H	0.00	0.28	0.00	0.63	1.02	9.92	10.95	10.32	11.31	11.69
	3H	1.69	2.54	2.11	2.94	3.35	10.10	10.94	10.51	11.35	11.75
	4H	3.05	3.81	3.49	4.23	4.67	10.22	10.98	10.66	11.40	11.84
	6H	4.16	4.81	4.63	5.26	5.73	10.43	11.09	10.90	11.54	12.00
	8H	4.66	5.28	5.13	5.72	6.19	10.56	11.17	11.03	11.62	12.09
	12H	5.12	5.66	5.61	6.15	6.62	10.73	11.26	11.21	11.75	12.22
8H	4H	3.97	4.58	4.44	5.03	5.50	10.23	10.84	10.70	11.29	11.76
	6H	5.54	6.04	6.05	6.54	7.02	10.55	11.05	11.06	11.55	12.03
	8H	6.37	6.82	6.89	7.34	7.83	10.78	11.23	11.30	11.75	12.24
	12H	7.15	7.55	7.67	8.04	8.62	11.11	11.51	11.63	12.00	12.58
12H	4H	4.13	4.67	4.62	5.16	5.63	10.22	10.75	10.70	11.24	11.71
	6H	5.86	6.31	6.38	6.83	7.32	10.58	11.03	11.11	11.55	12.04
	8H	6.87	7.27	7.39	7.76	8.34	10.89	11.29	11.41	11.79	12.36