

Cooper Lighting Solutions Photometric Lab
1121 Highway 74 South
Peachtree City, GA 30269



Scaled data based on original data using
LM-79-2019 Approved Method: Electrical and Photometric Measurements of Solid-
State Lighting Products

Test Report Prepared for
Cooper Lighting Solutions

Brand: NEO-RAY

Report Number: P1059647

Luminaire Tested: S123RDR-H340D950-X4F0-XX-UDD-SVL-S

Issue Date: 8/7/2025

Test Information

Test Method: LM-79-2019
Report Number: P1059647
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: S123RDR-H340D950-X4F0-XX-UDD-SVL-S
Description: DEFINE 3 SILVER REGRESSED DIRECT RECESSED HOUSING WITH SILVER STRAIGHT BLADE LOUVER WITH DIFFUSER
HIGH PERFORMANCE LIGHT ENGINE
Light Source: 5000K CCT, 90 CRI LEDS
Ballast/Driver: -

Summary

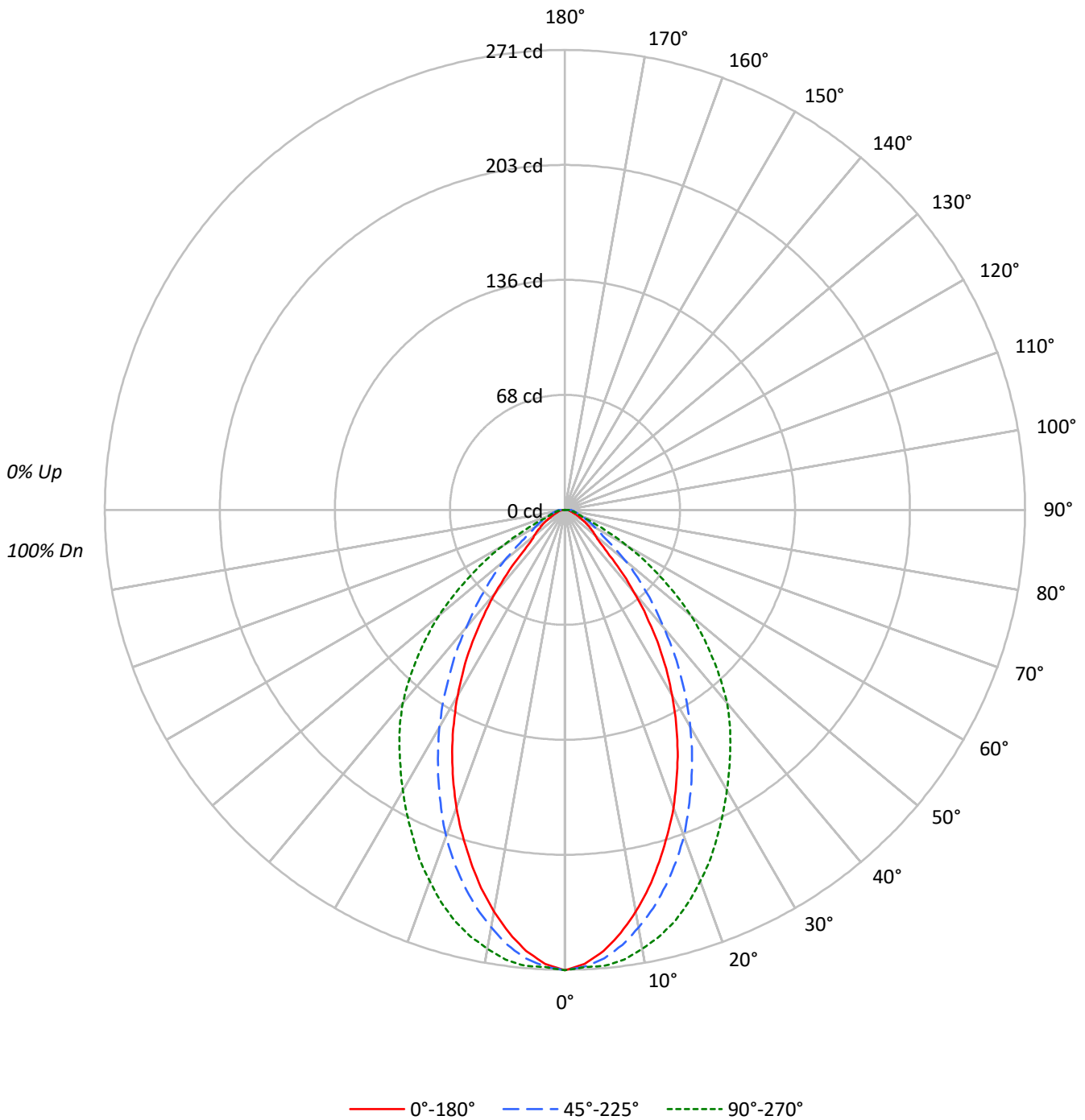
Lumens per Lamp: N/A
Luminaire Lumens: 363.3 lumens
Efficiency: N/A
Efficacy: 31.1 lumens/watt
Spacing Criteria (0/90/45): 0.83 / 1.07 / 0.98
Luminous Opening: Rectangular (W 0.23' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 11.7
Input Voltage (V): 120
Input Current (Ain): 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°	3186	3186	3186
5°	3076	3127	3179
10°	2866	2980	3131
15°	2609	2788	3048
20°	2336	2558	2910
25°	2037	2283	2751
30°	1713	2003	2588
35°	1362	1697	2435
40°	972	1384	2276
45°	580	1111	2039
50°	427	846	1765
55°	356	575	1402
60°	289	474	986
65°	231	408	528
70°	189	354	326
75°	181	340	304
80°	189	372	298
85°	269	539	377

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°
 Vertical Angle: 45°
 Luminance: 2039 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	24.9	6.9
10°-20°	64.7	17.8
20°-30°	82.6	22.7
30°-40°	77.7	21.4
40°-50°	55.8	15.4
50°-60°	32.0	8.8
60°-70°	14.6	4.0
70°-80°	7.3	2.0
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°	172.2	47.4
0°-40°	249.9	68.8
0°-60°	337.7	93.0
0°-90°	363.3	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	363.3	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	271	271	271	271	271	
5°	261	266	265	267	270	24
15°	215	222	229	242	251	60
25°	157	164	176	195	212	72
35°	95	102	118	145	170	59
45°	35	42	67	99	123	29
55°	17	18	28	52	68	16
65°	8	12	15	16	19	8
75°	4	8	8	7	7	4
85°	2	4	4	4	3	2
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	271.3	271.3	271.3	271.3	271.3
2.5°	267.7	271.7	269.3	269.3	269.7
5°	261.0	266.1	265.3	267.3	269.7
7.5°	251.5	257.0	258.6	263.4	267.3
10°	240.4	246.7	249.9	257.4	262.6
12.5°	228.1	235.2	240.4	249.9	257.4
15°	214.6	222.2	229.3	241.6	250.7
17.5°	200.8	208.3	217.4	231.7	242.4
20°	186.9	194.5	204.7	219.8	232.9
22.5°	171.9	179.4	190.5	207.5	223.4
25°	157.2	164.4	176.2	195.2	212.3
27.5°	141.8	148.9	162.0	182.6	201.6
30°	126.3	133.5	147.7	169.9	190.9
32.5°	110.9	117.6	133.1	157.6	180.2
35°	95.0	101.8	118.4	145.3	169.9
37.5°	78.8	85.5	104.9	134.3	159.6
40°	63.4	70.9	90.3	123.2	148.5
42.5°	48.3	56.2	78.4	111.3	135.8
45°	34.9	42.4	66.9	98.6	122.8
47.5°	26.5	30.5	56.6	85.9	110.1
50°	23.4	23.8	46.3	74.5	96.6
52.5°	20.2	20.6	36.0	63.4	82.4
55°	17.4	17.8	28.1	51.9	68.5
57.5°	14.7	15.4	23.0	41.2	55.0
60°	12.3	13.9	20.2	31.3	42.0
62.5°	9.9	12.7	17.4	23.0	30.1
65°	8.3	11.5	14.7	16.2	19.0
67.5°	6.7	10.7	12.3	11.5	11.5
70°	5.5	9.5	10.3	9.5	9.5
72.5°	4.8	9.1	8.7	7.9	7.9
75°	4.0	7.9	7.5	6.7	6.7
77.5°	3.6	6.7	6.3	5.9	5.5
80°	2.8	5.5	5.5	5.1	4.4
82.5°	2.4	4.8	4.8	4.4	3.6
85°	2.0	4.0	4.0	3.6	2.8
87.5°	1.6	3.6	3.6	3.2	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	4.00	5.32	4.36	5.63	5.94	11.23	12.55	11.60	12.86	13.18
	3H	5.40	6.57	5.78	6.90	7.26	11.47	12.64	11.85	12.97	13.33
	4H	5.97	7.05	6.37	7.41	7.79	11.58	12.66	11.98	13.02	13.40
	6H	6.43	7.43	6.84	7.80	8.20	11.68	12.68	12.10	13.05	13.45
	8H	6.62	7.57	7.05	7.96	8.36	11.73	12.68	12.16	13.07	13.48
	12H	6.81	7.72	7.25	8.11	8.54	11.78	12.69	12.22	13.07	13.50
4H	2H	5.08	6.17	5.48	6.52	6.91	11.20	12.28	11.60	12.64	13.02
	3H	6.77	7.66	7.18	8.06	8.47	11.56	12.46	11.98	12.86	13.26
	4H	7.60	8.40	8.04	8.82	9.26	11.74	12.54	12.18	12.96	13.41
	6H	8.26	8.95	8.72	9.40	9.86	11.96	12.66	12.43	13.10	13.57
	8H	8.52	9.17	8.99	9.61	10.08	12.07	12.71	12.54	13.16	13.63
	12H	8.78	9.35	9.27	9.84	10.31	12.19	12.76	12.67	13.24	13.72
8H	4H	8.03	8.68	8.50	9.13	9.60	11.79	12.43	12.26	12.88	13.35
	6H	8.98	9.51	9.49	10.01	10.49	12.12	12.65	12.62	13.14	13.62
	8H	9.46	9.93	9.98	10.45	10.94	12.31	12.79	12.83	13.30	13.80
	12H	9.95	10.37	10.46	10.86	11.43	12.55	12.97	13.06	13.47	14.04
12H	4H	8.09	8.66	8.58	9.15	9.62	11.78	12.35	12.27	12.84	13.31
	6H	9.13	9.61	9.65	10.12	10.62	12.14	12.62	12.67	13.14	13.63
	8H	9.74	10.16	10.25	10.65	11.22	12.41	12.83	12.92	13.33	13.90