

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: P1059611

Luminaire Tested: S123RDR-H340D927-X4F0-XX-UDD-SVL-S

Issue Date: 8/7/2025

Test Information

Test Method: LM-79-2019
Report Number: P1059611
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-H340D927-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: 2700K CCT, 90 CRI LEDS
Ballast/Driver: -

Summary

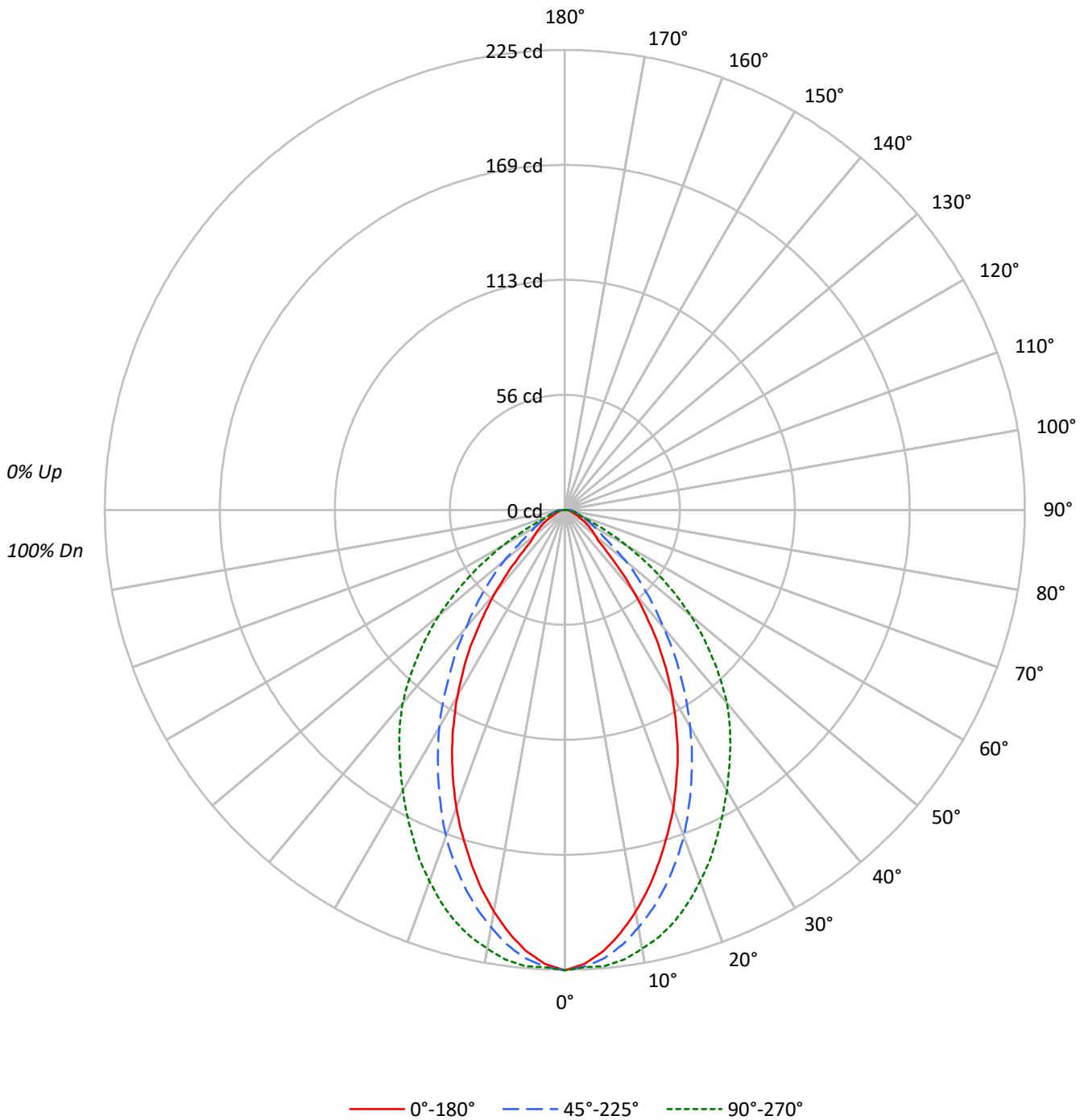
Lumens per Lamp: N/A
Luminaire Lumens: 301.7 lumens
Efficiency: N/A
Efficacy: 25.8 lumens/watt
Spacing Criteria (0/90/45): 0.83 / 1.07 / 0.98
Luminous Opening: Rectangular (W 0.23' x L: 4' x H: 0')
CIE Type: Direct

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	50	30	10	0	
RCR																						
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100				100
1	111	108	105	102	109	106	103	100	101	99	97	98	96	94	94	93	91	89				89
2	104	98	92	88	102	96	91	87	92	88	85	89	86	83	86	84	81	79				79
3	97	89	82	77	95	87	81	77	84	79	75	82	78	74	79	76	73	71				71
4	91	81	74	69	88	80	73	68	77	72	67	75	70	66	73	69	66	64				64
5	85	74	67	61	83	73	66	61	71	65	61	69	64	60	68	63	59	58				58
6	79	68	61	56	78	67	60	55	66	60	55	64	59	54	63	58	54	52				52
7	74	63	56	51	73	62	55	50	61	55	50	60	54	50	58	53	49	48				48
8	70	58	51	46	69	58	51	46	57	50	46	56	50	46	54	49	45	44				44
9	66	54	47	43	65	54	47	43	53	47	42	52	46	42	51	46	42	40				40
10	62	51	44	39	61	50	44	39	50	43	39	49	43	39	48	43	39	37				37

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	2646	2646	2646
5°	2554	2597	2640
10°	2380	2474	2599
15°	2166	2315	2531
20°	1939	2124	2417
25°	1692	1896	2284
30°	1422	1664	2149
35°	1131	1409	2023
40°	806	1150	1890
45°	480	923	1692
50°	354	703	1465
55°	297	477	1165
60°	240	395	820
65°	192	339	439
70°	158	295	271
75°	150	281	254
80°	156	311	243
85°	216	445	310

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°
 Vertical Angle: 45°
 Luminance: 1692 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	20.7	6.9
10°-20°	53.8	17.8
20°-30°	68.6	22.7
30°-40°	64.5	21.4
40°-50°	46.3	15.4
50°-60°	26.6	8.8
60°-70°	12.2	4.0
70°-80°	6.1	2.0
80°-90°	3.0	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°	143.0	47.4
0°-40°	207.5	68.8
0°-60°	280.4	93.0
0°-90°	301.7	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	301.7	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	225	225	225	225	225	
5°	217	221	220	222	224	20
15°	178	184	190	201	208	50
25°	131	136	146	162	176	60
35°	79	84	98	121	141	49
45°	29	35	56	82	102	24
55°	14	15	23	43	57	13
65°	7	10	12	14	16	7
75°	3	7	6	6	6	4
85°	2	3	3	3	2	2
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	225.3	225.3	225.3	225.3	225.3
2.5°	222.3	225.6	223.6	223.6	224.0
5°	216.7	221.0	220.3	222.0	224.0
7.5°	208.8	213.4	214.7	218.7	222.0
10°	199.6	204.9	207.5	213.8	218.0
12.5°	189.4	195.3	199.6	207.5	213.8
15°	178.2	184.5	190.4	200.6	208.2
17.5°	166.7	173.0	180.5	192.4	201.3
20°	155.2	161.5	170.0	182.5	193.4
22.5°	142.7	149.0	158.2	172.3	185.5
25°	130.6	136.5	146.3	162.1	176.3
27.5°	117.7	123.6	134.5	151.6	167.4
30°	104.9	110.8	122.7	141.1	158.5
32.5°	92.1	97.7	110.5	130.9	149.6
35°	78.9	84.5	98.3	120.7	141.1
37.5°	65.4	71.0	87.1	111.5	132.5
40°	52.6	58.9	75.0	102.3	123.3
42.5°	40.1	46.7	65.1	92.4	112.8
45°	28.9	35.2	55.6	81.9	101.9
47.5°	22.0	25.3	47.0	71.4	91.4
50°	19.4	19.7	38.5	61.8	80.2
52.5°	16.8	17.1	29.9	52.6	68.4
55°	14.5	14.8	23.3	43.1	56.9
57.5°	12.2	12.8	19.1	34.2	45.7
60°	10.2	11.5	16.8	26.0	34.9
62.5°	8.2	10.5	14.5	19.1	25.0
65°	6.9	9.5	12.2	13.5	15.8
67.5°	5.6	8.9	10.2	9.5	9.5
70°	4.6	7.9	8.6	7.9	7.9
72.5°	3.9	7.6	7.2	6.6	6.6
75°	3.3	6.6	6.2	5.6	5.6
77.5°	3.0	5.6	5.3	4.9	4.6
80°	2.3	4.6	4.6	4.3	3.6
82.5°	2.0	3.9	3.9	3.6	3.0
85°	1.6	3.3	3.3	3.0	2.3
87.5°	1.3	3.0	3.0	2.6	1.6
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	3.36	4.67	3.72	4.99	5.30	10.59	11.91	10.95	12.22	12.53
	3H	4.76	5.93	5.14	6.26	6.63	10.82	11.99	11.20	12.32	12.69
	4H	5.33	6.41	5.73	6.77	7.15	10.93	12.02	11.33	12.37	12.75
	6H	5.79	6.79	6.21	7.16	7.56	11.04	12.04	11.45	12.41	12.80
	8H	5.98	6.93	6.41	7.32	7.72	11.08	12.03	11.51	12.42	12.83
	12H	6.16	7.07	6.60	7.45	7.89	11.14	12.04	11.57	12.43	12.86
4H	2H	4.44	5.53	4.84	5.88	6.26	10.55	11.64	10.95	11.99	12.37
	3H	6.13	7.03	6.55	7.43	7.83	10.92	11.81	11.33	12.21	12.62
	4H	6.97	7.77	7.40	8.19	8.63	11.10	11.90	11.54	12.32	12.76
	6H	7.63	8.32	8.09	8.77	9.23	11.32	12.01	11.79	12.46	12.93
	8H	7.88	8.53	8.35	8.98	9.45	11.42	12.07	11.89	12.52	12.99
	12H	8.13	8.70	8.62	9.19	9.66	11.54	12.11	12.03	12.60	13.07
8H	4H	7.40	8.05	7.87	8.50	8.97	11.15	11.79	11.61	12.24	12.71
	6H	8.35	8.88	8.86	9.38	9.86	11.48	12.01	11.98	12.50	12.98
	8H	8.81	9.29	9.33	9.81	10.30	11.67	12.15	12.19	12.66	13.15
	12H	9.29	9.71	9.80	10.20	10.77	11.90	12.33	12.42	12.82	13.39
12H	4H	7.46	8.03	7.95	8.52	8.99	11.14	11.71	11.62	12.19	12.67
	6H	8.50	8.98	9.02	9.49	9.98	11.50	11.98	12.02	12.50	12.99
	8H	9.08	9.51	9.60	10.00	10.57	11.76	12.19	12.28	12.68	13.25