

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: P1059173

Luminaire Tested: S123RDR-S340D830-X4F0-XX-UDD-WVL-S

Issue Date: 8/7/2025

**Test Information**

Test Method: LM-79-2019  
Report Number: P1059173  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2406-143-67 )  
Test Lab: INNOVATION CENTER  
Issue Date: 8/7/2025  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: NEO-RAY  
Catalog Number: S123RDR-S340D830-X4F0-XX-UDD-WVL-S  
Description: DEFINE 3 SILVER REGRESSED DIRECT RECESSED HOUSING WITH WHITE STRAIGHT BLADE  
LOUVER WITH DIFFUSER  
CORE LIGHT ENGINE  
Light Source: 3000K CCT, 80 CRI LEDS  
Ballast/Driver: -

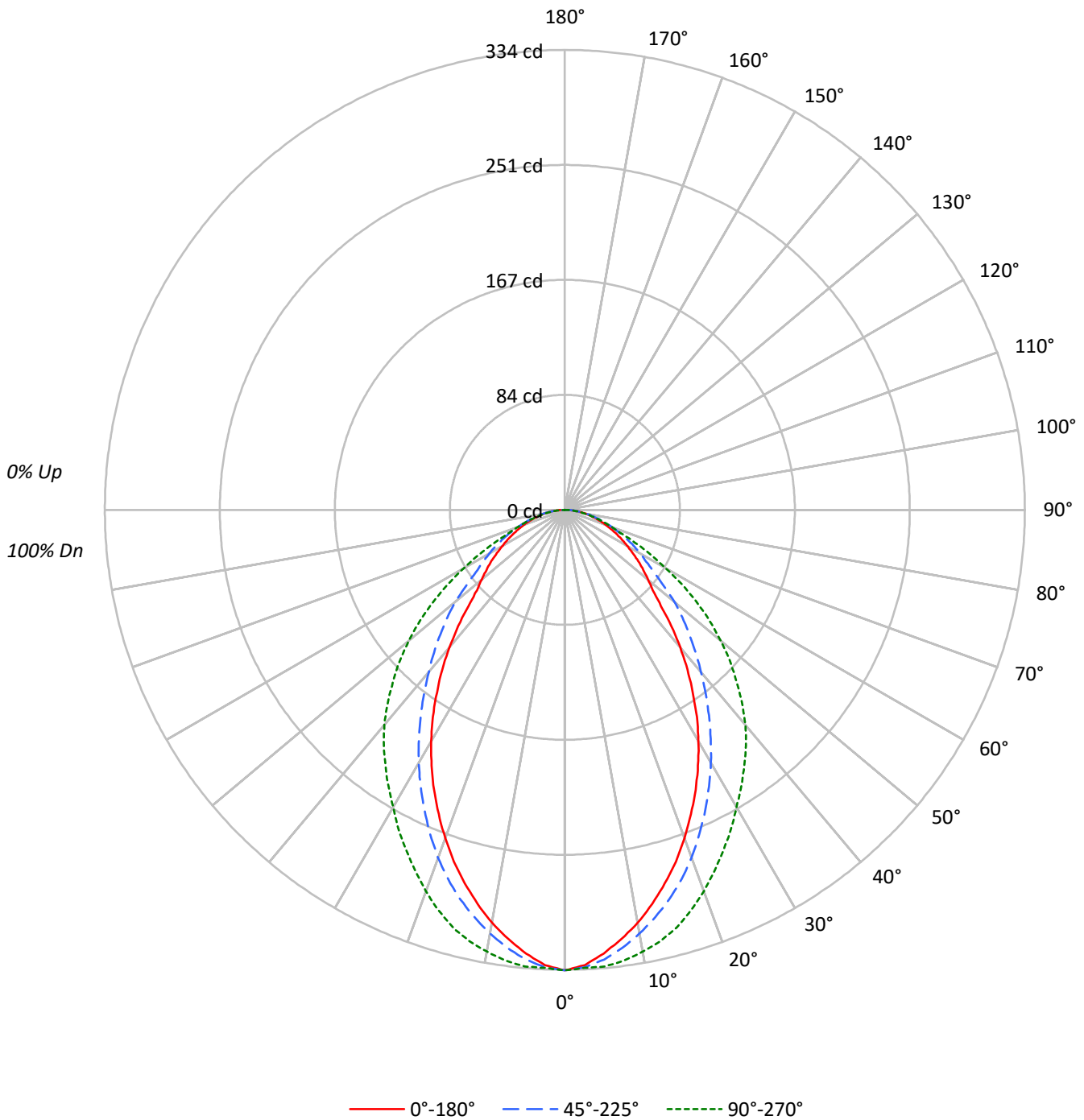
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 604.1 lumens  
Efficiency: N/A  
Efficacy: 48.3 lumens/watt  
Spacing Criteria (0/90/45): 0.93 / 1.12 / 1.1  
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 (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

TEST NUMBER: P1059173

CATALOG NUMBER: S123RDR-S340D830-X4F0-XX-UDD-WVL-S

### Luminous Intensity Polar Plot





TEST NUMBER: P1059173

CATALOG NUMBER: S123RDR-S340D830-X4F0-XX-UDD-WVL-S

**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				
1	110	106	102	99	108	104	100	97	100	97	94	96	93	91	92	90	89	87				
2	102	94	88	83	99	92	87	82	89	84	80	86	82	78	83	80	77	75				
3	94	84	77	71	91	83	76	71	80	74	69	77	72	68	75	71	67	65				
4	87	76	68	62	84	74	67	61	72	66	61	70	64	60	68	63	59	57				
5	80	69	60	54	78	68	60	54	66	59	54	64	58	53	62	57	53	51				
6	75	63	54	48	73	62	54	48	60	53	48	58	52	47	57	51	47	45				
7	70	57	49	44	68	56	49	43	55	48	43	54	47	43	52	47	43	41				
8	65	53	45	39	64	52	45	39	51	44	39	50	43	39	48	43	39	37				
9	61	49	41	36	60	48	41	36	47	40	36	46	40	36	45	39	35	34				
10	58	45	38	33	56	45	38	33	44	37	33	43	37	33	42	37	33	31				

**AVERAGE LUMINANCE (cd/sqm):**

	0°	45°	90°
0°	3927	3927	3927
5°	3812	3864	3924
10°	3632	3726	3885
15°	3412	3561	3817
20°	3170	3360	3684
25°	2910	3124	3531
30°	2632	2876	3380
35°	2321	2613	3254
40°	1996	2356	3126
45°	1641	2122	2929
50°	1440	1891	2700
55°	1333	1613	2391
60°	1224	1482	1980
65°	1145	1361	1559
70°	1078	1239	1239
75°	1012	1139	1066
80°	953	1035	899
85°	903	997	687

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 90°  
 Vertical Angle: 45°  
 Luminance: 2929 cd/sqm

TEST NUMBER: P1059173

CATALOG NUMBER: S123RDR-S340D830-X4F0-XX-UDD-WVL-S

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	30.9	5.1
10°-20°	82.9	13.7
20°-30°	112.4	18.6
30°-40°	117.5	19.5
40°-50°	101.9	16.9
50°-60°	75.8	12.5
60°-70°	48.7	8.1
70°-80°	26.1	4.3
80°-90°	7.9	1.3
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°	226.2	37.4
0°-40°	343.7	56.9
0°-60°	521.5	86.3
0°-90°	604.1	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	604.1	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	334	334	334	334	334	
5°	323	329	328	330	333	30
15°	281	287	293	305	314	79
25°	225	232	241	257	272	103
35°	162	170	182	205	227	101
45°	99	106	128	155	176	78
55°	65	67	79	101	117	58
65°	41	45	49	52	56	41
75°	22	26	25	24	24	24
85°	7	8	7	6	5	8
90°	0	0	0	0	0	



TEST NUMBER: P1059173

CATALOG NUMBER: S123RDR-S340D830-X4F0-XX-UDD-WVL-S

**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	334.4	334.4	334.4	334.4	334.4
2.5°	330.9	335.6	332.5	332.5	332.9
5°	323.4	328.9	327.8	330.1	332.9
7.5°	314.4	320.3	320.7	326.2	330.1
10°	304.6	310.5	312.5	320.3	325.8
12.5°	292.9	299.5	303.1	312.9	320.7
15°	280.7	287.4	292.9	304.6	314.0
17.5°	267.8	274.4	281.5	294.8	305.0
20°	253.7	260.7	268.9	282.3	294.8
22.5°	239.2	246.6	255.2	269.7	283.8
25°	224.6	231.7	241.1	257.2	272.5
27.5°	209.4	216.8	226.6	244.2	261.5
30°	194.1	201.5	212.1	230.9	249.3
32.5°	178.4	185.8	197.2	218.4	238.4
35°	161.9	169.8	182.3	205.4	227.0
37.5°	146.2	153.7	167.8	193.3	216.0
40°	130.2	138.0	153.7	181.1	203.9
42.5°	114.5	122.3	140.7	168.2	190.5
45°	98.8	106.2	127.8	155.3	176.4
47.5°	86.6	92.1	115.7	141.5	162.7
50°	78.8	80.8	103.5	128.2	147.8
52.5°	71.7	73.3	90.2	114.9	132.5
55°	65.1	66.6	78.8	101.1	116.8
57.5°	58.4	60.4	70.2	87.0	101.1
60°	52.1	54.5	63.1	74.5	84.3
62.5°	46.7	49.4	56.1	63.1	69.8
65°	41.2	44.7	49.0	52.1	56.1
67.5°	36.1	40.0	42.3	43.1	43.5
70°	31.4	35.3	36.1	36.1	36.1
72.5°	26.7	31.0	30.2	29.8	29.4
75°	22.3	25.9	25.1	23.9	23.5
77.5°	18.0	21.2	20.0	19.2	18.0
80°	14.1	16.5	15.3	14.5	13.3
82.5°	10.6	12.2	11.0	10.2	9.0
85°	6.7	8.2	7.4	6.3	5.1
87.5°	3.5	4.7	3.9	3.5	2.0
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)