

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: P1059168

Luminaire Tested: S123RDR-S340D830-X4F0-XX-UDD-BVL-W

Issue Date: 8/7/2025

Test Information

Test Method: LM-79-2019
Report Number: P1059168
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2406-143-66)
Test Lab: INNOVATION CENTER
Issue Date: 8/7/2025
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: NEO-RAY
Catalog Number: S123RDR-S340D830-X4F0-XX-UDD-BVL-W
Description: DEFINE 3 WHITE REGRESSED DIRECT RECESSED HOUSING WITH BLACK STRAIGHT BLADE
LOUVER WITH DIFFUSER
CORE LIGHT ENGINE
Light Source: 3000K CCT, 80 CRI LEDS
Ballast/Driver: -

Summary

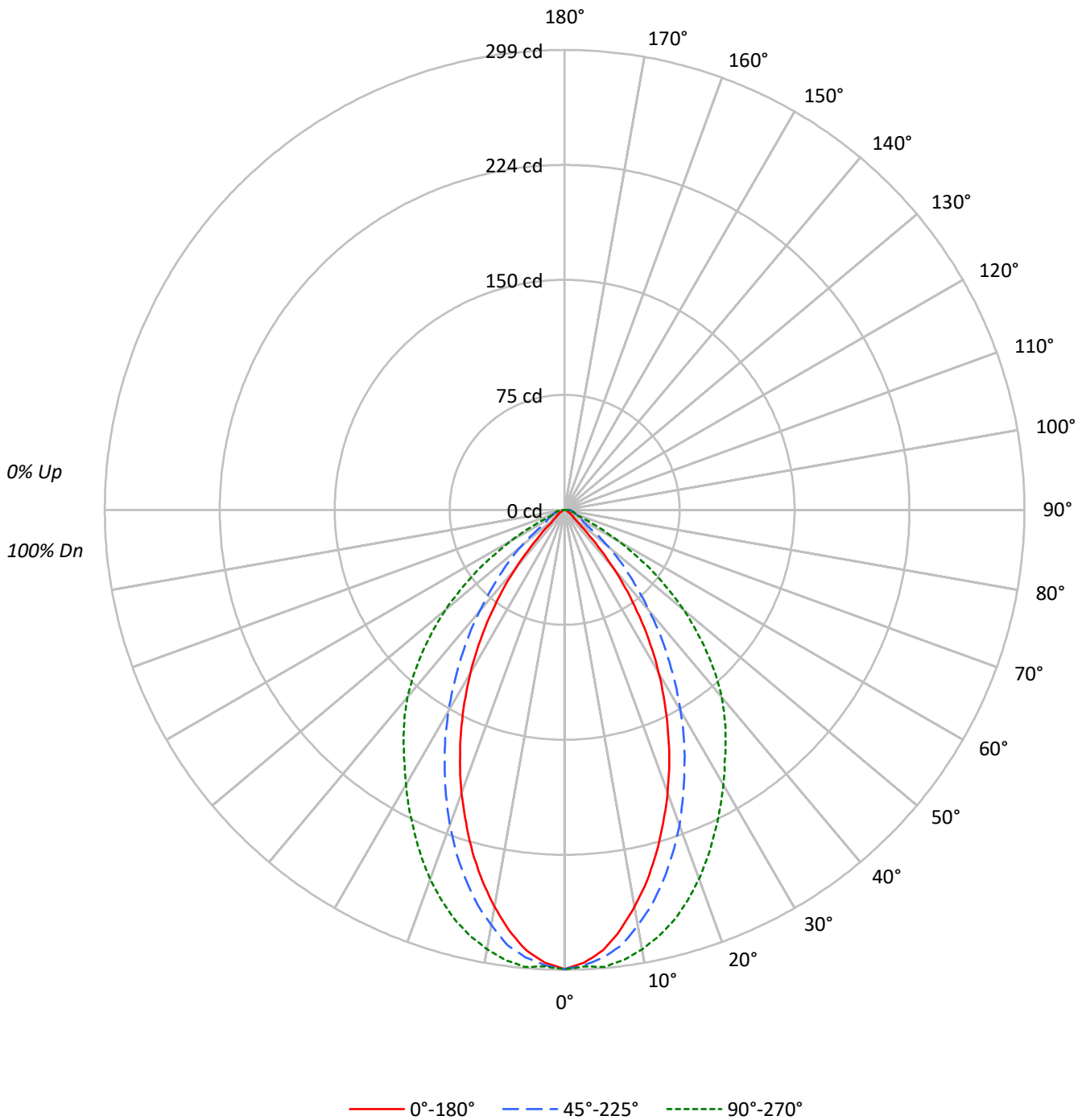
Lumens per Lamp: N/A
Luminaire Lumens: 358.6 lumens
Efficiency: N/A
Efficacy: 28.7 lumens/watt
Spacing Criteria (0/90/45): 0.79 / 1.06 / 0.94
Luminous Opening: Rectangular (W 0.23' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 12.5
Input Voltage (V): 120
Input Current (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: P1059168

CATALOG NUMBER: S123RDR-S340D830-X4F0-XX-UDD-BVL-W

Luminous Intensity Polar Plot





TEST NUMBER: P1059168

CATALOG NUMBER: S123RDR-S340D830-X4F0-XX-UDD-BVL-W

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	112	108	105	102	109	106	103	101	102	100	98	98	96	95	95	93	92	90				
2	105	99	94	90	102	97	92	88	94	90	87	91	87	85	88	85	83	81				
3	98	90	84	79	96	89	83	79	86	81	77	83	79	76	81	78	75	73				
4	92	83	76	71	90	81	75	70	79	74	70	77	72	69	75	71	68	66				
5	86	76	69	64	84	75	69	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	65	58	53	63	57	53	62	56	52	61	56	52	50				
8	72	61	54	49	70	60	53	49	59	53	49	58	52	48	57	52	48	47				
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	42	40				

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	3506	3506	3506
5°	3386	3442	3515
10°	3125	3271	3458
15°	2805	3025	3354
20°	2447	2727	3193
25°	2064	2389	2994
30°	1660	2043	2799
35°	1216	1681	2616
40°	757	1311	2436
45°	287	978	2170
50°	137	674	1849
55°	104	371	1431
60°	73	312	939
65°	56	272	392
70°	55	257	257
75°	73	268	268
80°	108	318	291
85°	216	525	418

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°
 Vertical Angle: 45°
 Luminance: 2170 cd/sqm



TEST NUMBER: P1059168

CATALOG NUMBER: S123RDR-S340D830-X4F0-XX-UDD-BVL-W

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	27.4	7.6
10°-20°	70.3	19.6
20°-30°	87.0	24.3
30°-40°	78.0	21.8
40°-50°	51.1	14.3
50°-60°	25.6	7.1
60°-70°	10.0	2.8
70°-80°	5.6	1.6
80°-90°	3.5	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°	184.7	51.5
0°-40°	262.7	73.3
0°-60°	339.5	94.7
0°-90°	358.6	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	358.6	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	299	299	299	299	299	
5°	287	292	292	295	298	27
15°	231	240	249	265	276	64
25°	159	169	184	211	231	73
35°	85	96	117	153	182	53
45°	17	28	59	101	131	16
55°	5	6	18	49	70	5
65°	2	6	10	13	14	2
75°	2	6	6	6	6	2
85°	2	4	4	4	3	1
90°	0	0	0	0	0	



TEST NUMBER: P1059168

CATALOG NUMBER: S123RDR-S340D830-X4F0-XX-UDD-BVL-W

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	298.6	298.6	298.6	298.6	298.6
2.5°	294.7	299.0	296.3	296.7	297.1
5°	287.3	292.0	292.0	295.1	298.2
7.5°	275.9	281.4	285.3	290.8	295.1
10°	262.1	268.8	274.3	284.1	290.0
12.5°	247.2	255.5	262.5	275.5	283.7
15°	230.7	240.2	248.8	265.3	275.9
17.5°	213.1	222.5	233.9	253.1	266.1
20°	195.8	205.2	218.2	239.8	255.5
22.5°	177.8	187.6	201.3	225.3	243.7
25°	159.3	169.1	184.4	210.7	231.1
27.5°	140.9	150.7	168.0	196.6	219.0
30°	122.4	132.2	150.7	181.3	206.4
32.5°	104.0	114.6	133.8	167.2	193.9
35°	84.8	96.1	117.3	152.7	182.5
37.5°	67.1	77.7	101.6	140.1	171.1
40°	49.4	60.8	85.5	127.9	158.9
42.5°	32.2	44.3	71.0	114.6	145.2
45°	17.3	27.9	58.9	100.9	130.7
47.5°	9.4	15.3	47.5	86.3	115.8
50°	7.5	8.6	36.9	73.8	101.2
52.5°	6.3	7.1	26.3	62.0	85.2
55°	5.1	6.3	18.1	49.4	69.9
57.5°	4.3	5.5	14.1	38.5	54.5
60°	3.1	4.7	13.3	28.3	40.0
62.5°	2.4	5.1	11.8	19.6	26.3
65°	2.0	5.9	9.8	13.0	14.1
67.5°	1.6	6.3	8.6	8.2	8.2
70°	1.6	5.9	7.5	7.1	7.5
72.5°	1.6	6.3	6.7	6.3	6.7
75°	1.6	5.9	5.9	5.9	5.9
77.5°	1.6	5.5	5.5	5.1	5.1
80°	1.6	4.7	4.7	4.7	4.3
82.5°	1.6	4.3	4.3	4.3	3.5
85°	1.6	3.9	3.9	3.9	3.1
87.5°	1.2	3.5	3.9	3.5	2.4
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)