

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: P1059186

Luminaire Tested: S123RDR-S340D840-X4F0-XX-UDD-BVL-W

Issue Date: 8/7/2025

Test Information

Test Method: LM-79-2019
Report Number: P1059186
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-S340D840-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: 4000K CCT, 80 CRI LEDS
Ballast/Driver: -

Summary

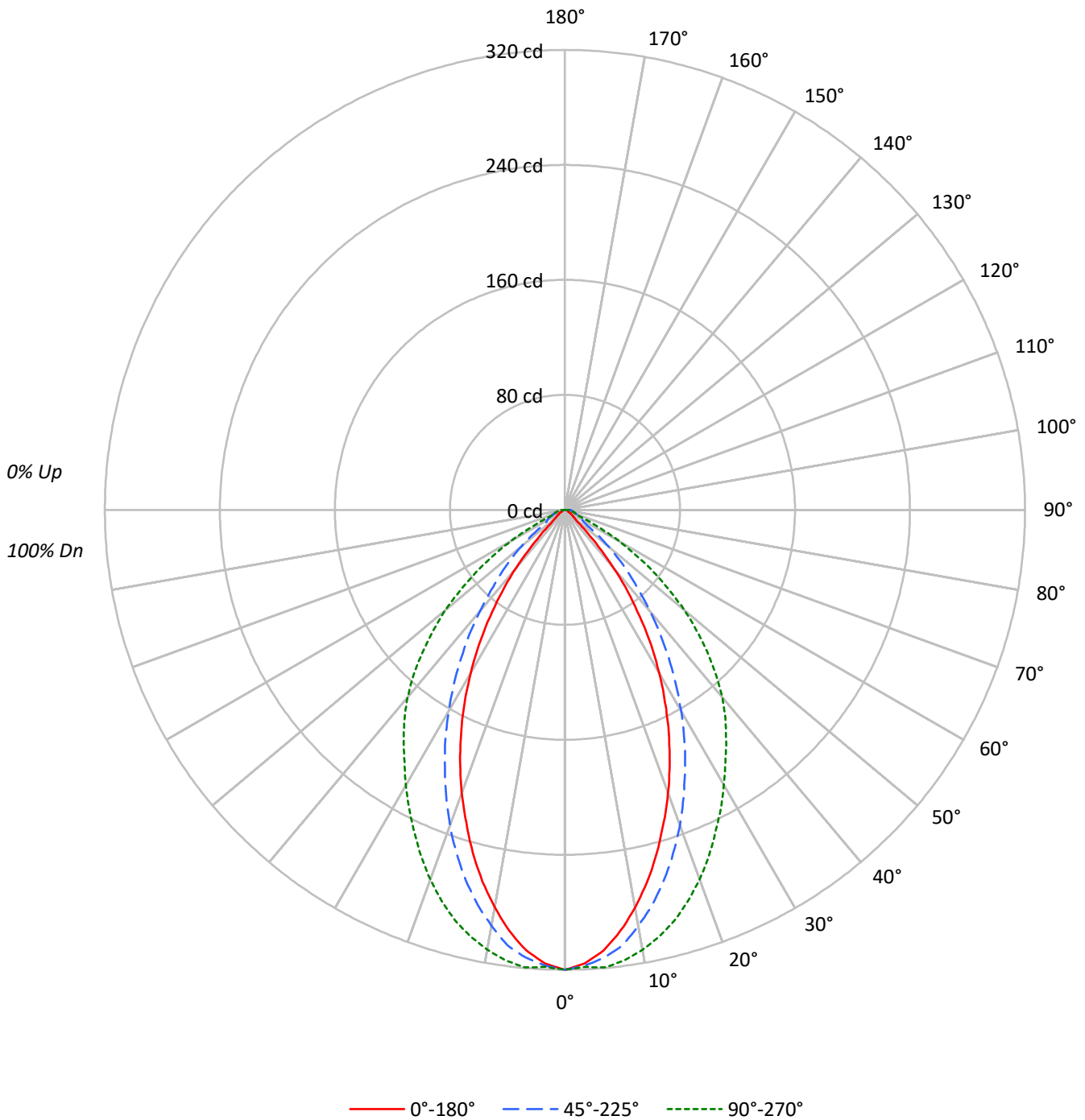
Lumens per Lamp: N/A
Luminaire Lumens: 384.2 lumens
Efficiency: N/A
Efficacy: 30.7 lumens/watt
Spacing Criteria (0/90/45): 0.79 / 1.06 / 0.94
Luminous Opening: Rectangular (W 0.23' x L: 4' x H: 0')
CIE Type: Direct

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: P1059186

CATALOG NUMBER: S123RDR-S340D840-X4F0-XX-UDD-BVL-W

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	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°	3758	3758	3758
5°	3628	3687	3766
10°	3349	3504	3705
15°	3005	3241	3594
20°	2622	2922	3420
25°	2212	2560	3208
30°	1779	2190	2999
35°	1302	1802	2802
40°	812	1406	2610
45°	307	1048	2325
50°	146	722	1982
55°	113	395	1531
60°	80	336	1008
65°	58	292	420
70°	58	275	275
75°	77	286	286
80°	115	338	311
85°	229	566	458

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°
 Vertical Angle: 45°
 Luminance: 2325 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	29.4	7.6
10°-20°	75.3	19.6
20°-30°	93.2	24.3
30°-40°	83.6	21.8
40°-50°	54.8	14.3
50°-60°	27.4	7.1
60°-70°	10.7	2.8
70°-80°	6.0	1.6
80°-90°	3.7	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°	197.9	51.5
0°-40°	281.5	73.3
0°-60°	363.7	94.7
0°-90°	384.2	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	384.2	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	320	320	320	320	320	
5°	308	313	313	316	320	29
15°	247	257	267	284	296	69
25°	171	181	198	226	248	78
35°	91	103	126	164	196	57
45°	18	30	63	108	140	18
55°	6	7	19	53	75	5
65°	2	6	10	14	15	2
75°	2	6	6	6	6	2
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°	320.0	320.0	320.0	320.0	320.0
2.5°	315.8	320.4	317.4	317.9	318.3
5°	307.8	312.8	312.8	316.2	319.5
7.5°	295.6	301.5	305.7	311.6	316.2
10°	280.9	288.0	293.9	304.4	310.7
12.5°	264.9	273.7	281.3	295.2	304.0
15°	247.2	257.3	266.6	284.2	295.6
17.5°	228.3	238.4	250.6	271.2	285.1
20°	209.8	219.9	233.8	256.9	273.7
22.5°	190.5	201.0	215.7	241.3	261.1
25°	170.7	181.2	197.6	225.8	247.6
27.5°	150.9	161.5	180.0	210.6	234.6
30°	131.2	141.7	161.5	194.3	221.2
32.5°	111.4	122.8	143.4	179.1	207.7
35°	90.8	103.0	125.7	163.6	195.5
37.5°	71.9	83.3	108.9	150.1	183.3
40°	53.0	65.2	91.7	137.1	170.3
42.5°	34.5	47.5	76.1	122.8	155.6
45°	18.5	29.9	63.1	108.1	140.0
47.5°	10.1	16.4	50.9	92.5	124.0
50°	8.0	9.3	39.5	79.0	108.5
52.5°	6.7	7.6	28.2	66.4	91.2
55°	5.5	6.7	19.3	53.0	74.8
57.5°	4.6	5.9	15.1	41.2	58.4
60°	3.4	5.0	14.3	30.3	42.9
62.5°	2.5	5.5	12.6	21.0	28.2
65°	2.1	6.3	10.5	13.9	15.1
67.5°	1.7	6.7	9.3	8.8	8.8
70°	1.7	6.3	8.0	7.6	8.0
72.5°	1.7	6.7	7.1	6.7	7.1
75°	1.7	6.3	6.3	6.3	6.3
77.5°	1.7	5.9	5.9	5.5	5.5
80°	1.7	5.0	5.0	5.0	4.6
82.5°	1.7	4.6	4.6	4.6	3.8
85°	1.7	4.2	4.2	4.2	3.4
87.5°	1.3	3.8	4.2	3.8	2.5
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)