

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: P1059184

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

Issue Date: 8/7/2025

Test Information

Test Method: LM-79-2019
Report Number: P1059184
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2406-143-30)
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-B
Description: DEFINE 3 BLACK REGRESSED DIRECT RECESSED HOUSING WITH BLACK STRAIGHT BLADE LOUVER WITH DIFFUSER
CORE LIGHT ENGINE
Light Source: 4000K CCT, 80 CRI LEDS
Ballast/Driver: -

Summary

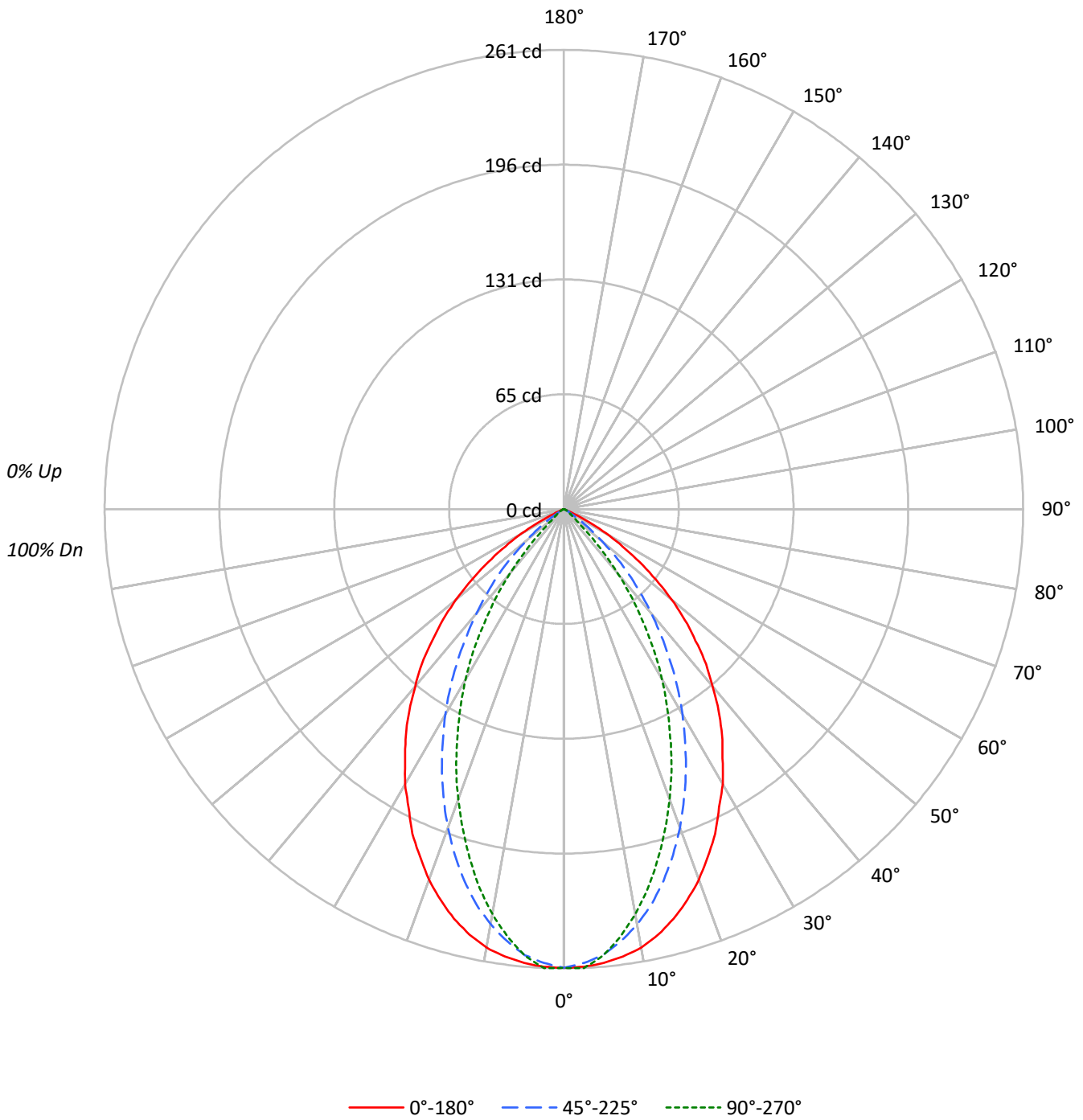
Lumens per Lamp: N/A
Luminaire Lumens: 297.5 lumens
Efficiency: N/A
Efficacy: 23.8 lumens/watt
Spacing Criteria (0/90/45): 1.06 / 0.81 / 0.94
Luminous Opening: Rectangular (W 0.23' x L: 4' x H: 0')
CIE Type: Direct

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: P1059184

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

Luminous Intensity Polar Plot



TEST NUMBER: P1059184

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

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	113	110	107	104	110	107	105	103	103	101	100	100	98	97	96	95	94	92
2	106	101	96	92	104	99	95	91	96	92	89	93	90	87	90	87	85	84
3	100	92	87	82	98	91	86	82	88	84	80	86	82	79	83	80	78	76
4	94	85	79	74	92	84	78	74	82	77	73	80	75	72	78	74	71	69
5	88	79	72	67	86	78	71	67	76	70	66	74	69	65	72	68	65	63
6	83	73	66	61	81	72	66	61	70	65	60	69	64	60	67	63	60	58
7	78	68	61	56	77	67	60	56	66	60	56	64	59	55	63	58	55	53
8	74	63	56	52	72	62	56	51	61	55	51	60	55	51	59	54	51	49
9	70	59	52	48	68	58	52	48	57	52	47	56	51	47	55	51	47	46
10	66	55	49	44	65	55	48	44	54	48	44	53	48	44	52	47	44	42

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	3061	3061	3061
5°	3053	2999	3003
10°	3018	2858	2788
15°	2930	2659	2505
20°	2802	2408	2193
25°	2638	2126	1854
30°	2447	1826	1515
35°	2245	1511	1125
40°	2014	1183	720
45°	1757	865	301
50°	1458	513	115
55°	1075	215	86
60°	651	80	49
65°	175	47	22
70°	0	14	14
75°	0	0	18
80°	0	0	0
85°	0	0	0

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 1757 cd/sqm



TEST NUMBER: P1059184

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

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	24.0	8.1
10°-20°	61.9	20.8
20°-30°	77.2	25.9
30°-40°	69.0	23.2
40°-50°	43.6	14.6
50°-60°	18.2	6.1
60°-70°	3.4	1.2
70°-80°	0.1	0.0
80°-90°	0.0	0.0
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°	163.1	54.8
0°-40°	232.1	78.0
0°-60°	293.9	98.8
0°-90°	297.5	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	297.5	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	261	261	261	261	261	
5°	259	259	254	255	255	25
15°	241	235	219	210	206	68
25°	204	187	164	150	143	93
35°	157	134	105	86	78	98
45°	106	82	52	28	18	82
55°	52	36	10	4	4	47
65°	6	5	2	1	1	9
75°	0	0	0	0	0	0
85°	0	0	0	0	0	0
90°	0	0	0	0	0	0



TEST NUMBER: P1059184

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

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	260.7	260.7	260.7	260.7	260.7
2.5°	260.3	260.7	258.2	260.7	261.1
5°	259.0	258.6	254.4	255.2	254.8
7.5°	256.5	255.2	247.7	246.0	245.1
10°	253.1	249.8	239.7	235.5	233.8
12.5°	247.7	243.0	230.0	223.3	220.8
15°	241.0	235.1	218.7	209.5	206.1
17.5°	233.0	224.6	206.1	196.0	191.0
20°	224.2	212.4	192.7	180.5	175.5
22.5°	213.7	200.7	178.4	165.4	159.9
25°	203.6	187.2	164.1	149.9	143.1
27.5°	191.0	173.8	149.0	134.3	127.2
30°	180.5	160.8	134.7	118.4	111.7
32.5°	167.9	147.3	120.1	102.0	95.7
35°	156.6	133.9	105.4	86.5	78.5
37.5°	144.4	120.9	90.7	70.9	63.4
40°	131.4	107.9	77.2	55.4	47.0
42.5°	119.6	94.9	63.8	41.1	32.7
45°	105.8	82.3	52.1	27.7	18.1
47.5°	93.2	70.5	39.5	15.5	9.7
50°	79.8	58.3	28.1	8.0	6.3
52.5°	65.9	46.6	18.5	5.5	5.0
55°	52.5	36.1	10.5	4.2	4.2
57.5°	39.5	26.0	5.5	3.4	2.9
60°	27.7	17.2	3.4	2.5	2.1
62.5°	16.0	10.1	2.5	1.7	1.7
65°	6.3	4.6	1.7	0.8	0.8
67.5°	0.4	1.3	0.8	0.4	0.4
70°	0.0	0.0	0.4	0.4	0.4
72.5°	0.0	0.0	0.4	0.4	0.4
75°	0.0	0.0	0.0	0.0	0.4
77.5°	0.0	0.0	0.0	0.0	0.0
80°	0.0	0.0	0.0	0.0	0.0
82.5°	0.0	0.0	0.0	0.0	0.0
85°	0.0	0.0	0.0	0.0	0.0
87.5°	0.0	0.0	0.0	0.0	0.0
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)