

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: P1059201

Luminaire Tested: S123RDR-S340D850-X4F0-XX-UDD-WVL-W

Issue Date: 8/7/2025

Test Information

Test Method: LM-79-2019
Report Number: P1059201
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2406-143-64)
Test Lab: INNOVATION CENTER
Issue Date: 8/7/2025
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: NEO-RAY
Catalog Number: S123RDR-S340D850-X4F0-XX-UDD-WVL-W
Description: DEFINE 3 WHITE REGRESSED DIRECT RECESSED HOUSING WITH WHITE STRAIGHT BLADE LOUVER WITH DIFFUSER
CORE LIGHT ENGINE
Light Source: 5000K CCT, 80 CRI LEDS
Ballast/Driver: -

Summary

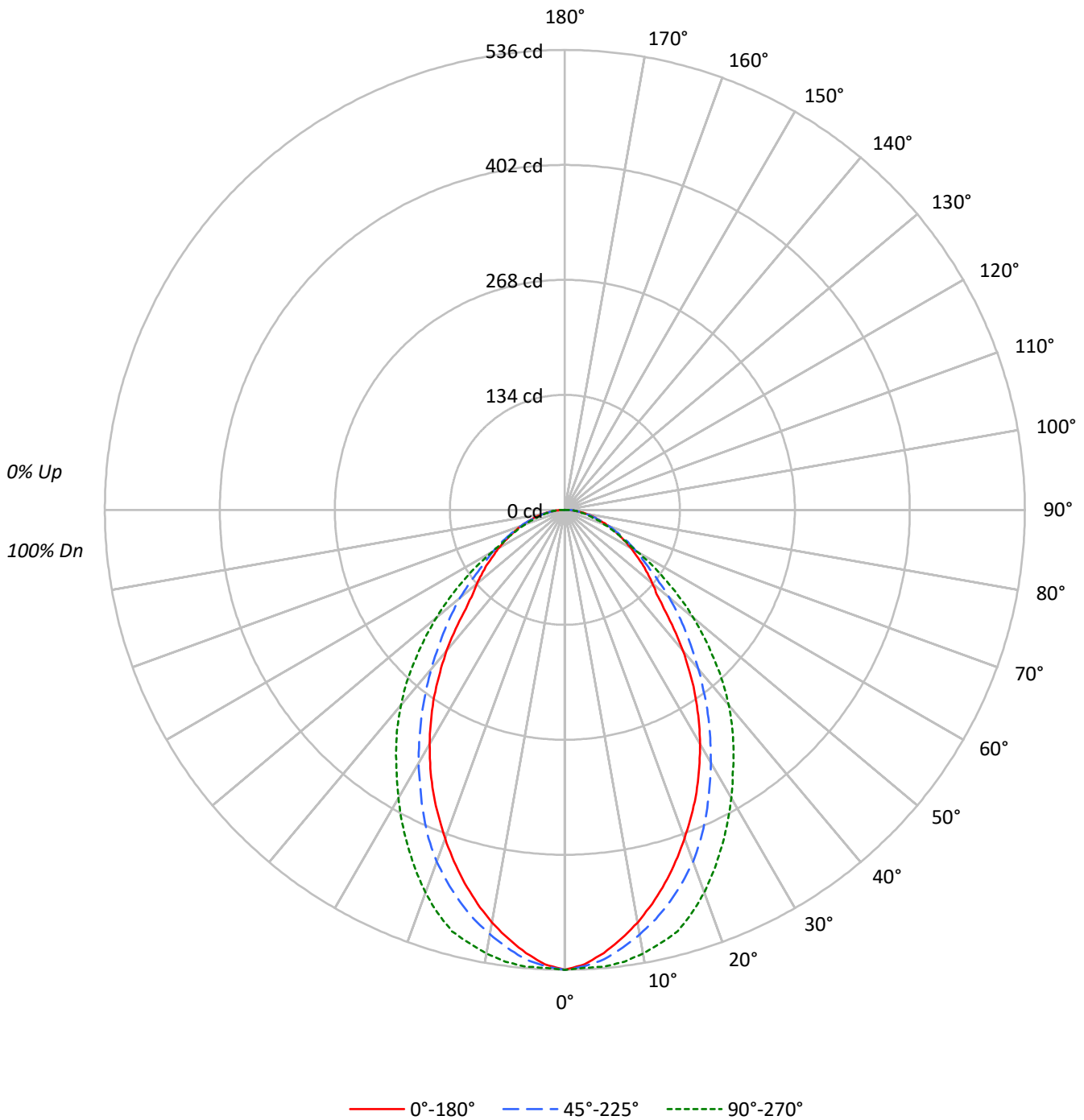
Lumens per Lamp: N/A
Luminaire Lumens: 942.0 lumens
Efficiency: N/A
Efficacy: 75.4 lumens/watt
Spacing Criteria (0/90/45): 0.94 / 1.1 / 1.09
Luminous Opening: Rectangular (W 0.23' x L: 4' x H: 0')
CIE Type: Direct

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: P1059201

CATALOG NUMBER: S123RDR-S340D850-X4F0-XX-UDD-WVL-W

Luminous Intensity Polar Plot





TEST NUMBER: P1059201

CATALOG NUMBER: S123RDR-S340D850-X4F0-XX-UDD-WVL-W

COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:

RF	20									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	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	110	106	102	99	108	104	101	97	100	97	94	96	94	92	92	91	89	87													87															
2	102	95	89	84	99	93	87	83	89	85	81	86	82	79	83	80	77	75													75															
3	94	85	77	72	92	83	76	71	80	75	70	78	73	69	75	71	68	66													66															
4	87	76	69	63	85	75	68	62	73	66	61	70	65	61	68	64	60	58													58															
5	81	69	61	55	79	68	61	55	66	59	54	64	58	54	62	57	53	51													51															
6	75	63	55	49	73	62	55	49	61	54	49	59	53	48	57	52	48	46													46															
7	70	58	50	44	69	57	50	44	56	49	44	54	48	44	53	48	43	41													41															
8	66	53	46	40	64	53	45	40	51	45	40	50	44	40	49	44	39	38													38															
9	62	49	42	37	60	49	42	37	48	41	36	47	41	36	46	40	36	34													34															
10	58	46	39	34	57	45	38	34	45	38	34	44	38	33	43	37	33	32													32															

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	6295	6295	6295
5°	6112	6199	6297
10°	5825	5990	6260
15°	5479	5749	6180
20°	5096	5453	5932
25°	4704	5057	5606
30°	4272	4617	5261
35°	3803	4166	4914
40°	3282	3713	4554
45°	2712	3286	4083
50°	2435	2899	3564
55°	2258	2475	2956
60°	2081	2255	2264
65°	1937	2039	1898
70°	1823	1854	1662
75°	1715	1651	1465
80°	1623	1494	1373
85°	1549	1684	1549

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°
 Vertical Angle: 45°
 Luminance: 4083 cd/sqm



TEST NUMBER: P1059201

CATALOG NUMBER: S123RDR-S340D850-X4F0-XX-UDD-WVL-W

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	49.6	5.3
10°-20°	133.8	14.2
20°-30°	181.0	19.2
30°-40°	186.0	19.7
40°-50°	156.2	16.6
50°-60°	112.0	11.9
60°-70°	71.3	7.6
70°-80°	39.2	4.2
80°-90°	13.1	1.4
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°	364.4	38.7
0°-40°	550.3	58.4
0°-60°	818.5	86.9
0°-90°	942.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	942.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	536	536	536	536	536	
5°	518	528	526	530	534	49
15°	451	463	473	493	508	126
25°	363	377	390	412	433	166
35°	265	280	291	316	343	165
45°	163	178	198	226	246	129
55°	110	113	121	137	144	98
65°	70	74	73	69	68	69
75°	38	42	36	34	32	40
85°	12	12	12	13	12	13
90°	0	0	0	0	0	

TEST NUMBER: P1059201

CATALOG NUMBER: S123RDR-S340D850-X4F0-XX-UDD-WVL-W

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	536.1	536.1	536.1	536.1	536.1
2.5°	530.1	537.4	532.4	532.8	534.2
5°	518.5	527.8	525.9	529.6	534.2
7.5°	504.2	514.4	514.8	523.6	531.0
10°	488.5	499.2	502.4	515.8	525.0
12.5°	470.1	481.6	488.5	505.2	517.1
15°	450.7	463.2	472.9	493.2	508.4
17.5°	429.5	442.9	455.3	477.0	492.7
20°	407.8	422.1	436.4	456.7	474.7
22.5°	385.2	400.0	414.7	434.6	454.4
25°	363.1	376.9	390.3	411.5	432.7
27.5°	339.1	353.4	364.9	388.4	410.6
30°	315.1	329.4	340.5	364.9	388.0
32.5°	290.2	304.9	315.1	340.5	364.4
35°	265.3	279.6	290.6	316.5	342.8
37.5°	239.0	254.7	265.7	294.8	320.6
40°	214.1	228.8	242.2	272.6	297.1
42.5°	188.2	203.4	218.7	250.0	272.6
45°	163.3	177.6	197.9	226.5	245.9
47.5°	145.3	154.5	178.1	202.1	220.5
50°	133.3	137.0	158.7	179.9	195.1
52.5°	121.3	124.1	138.9	158.2	169.8
55°	110.3	112.6	120.9	137.0	144.4
57.5°	98.3	100.6	107.5	116.7	120.9
60°	88.6	90.4	96.0	97.3	96.4
62.5°	78.9	81.7	84.4	81.2	79.8
65°	69.7	73.8	73.4	69.2	68.3
67.5°	61.4	65.5	63.2	59.0	57.7
70°	53.1	57.2	54.0	49.8	48.4
72.5°	45.2	49.8	44.7	41.1	40.1
75°	37.8	41.5	36.4	33.7	32.3
77.5°	30.9	33.7	29.1	26.8	25.8
80°	24.0	25.8	22.1	20.8	20.3
82.5°	17.5	18.5	16.1	17.1	16.6
85°	11.5	12.0	12.5	12.9	11.5
87.5°	5.5	7.8	7.8	7.4	6.0
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)