

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: P1059198

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

Issue Date: 8/7/2025

Test Information

Test Method: LM-79-2019
Report Number: P1059198
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2406-143-65)
Test Lab: INNOVATION CENTER
Issue Date: 8/7/2025
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: NEO-RAY
Catalog Number: S123RDR-S340D850-X4F0-XX-UDD-SVL-W
Description: DEFINE 3 WHITE REGRESSED DIRECT RECESSED HOUSING WITH SILVER STRAIGHT BLADE
LOUVER WITH DIFFUSER
CORE LIGHT ENGINE
Light Source: 5000K CCT, 80 CRI LEDS
Ballast/Driver: -

Summary

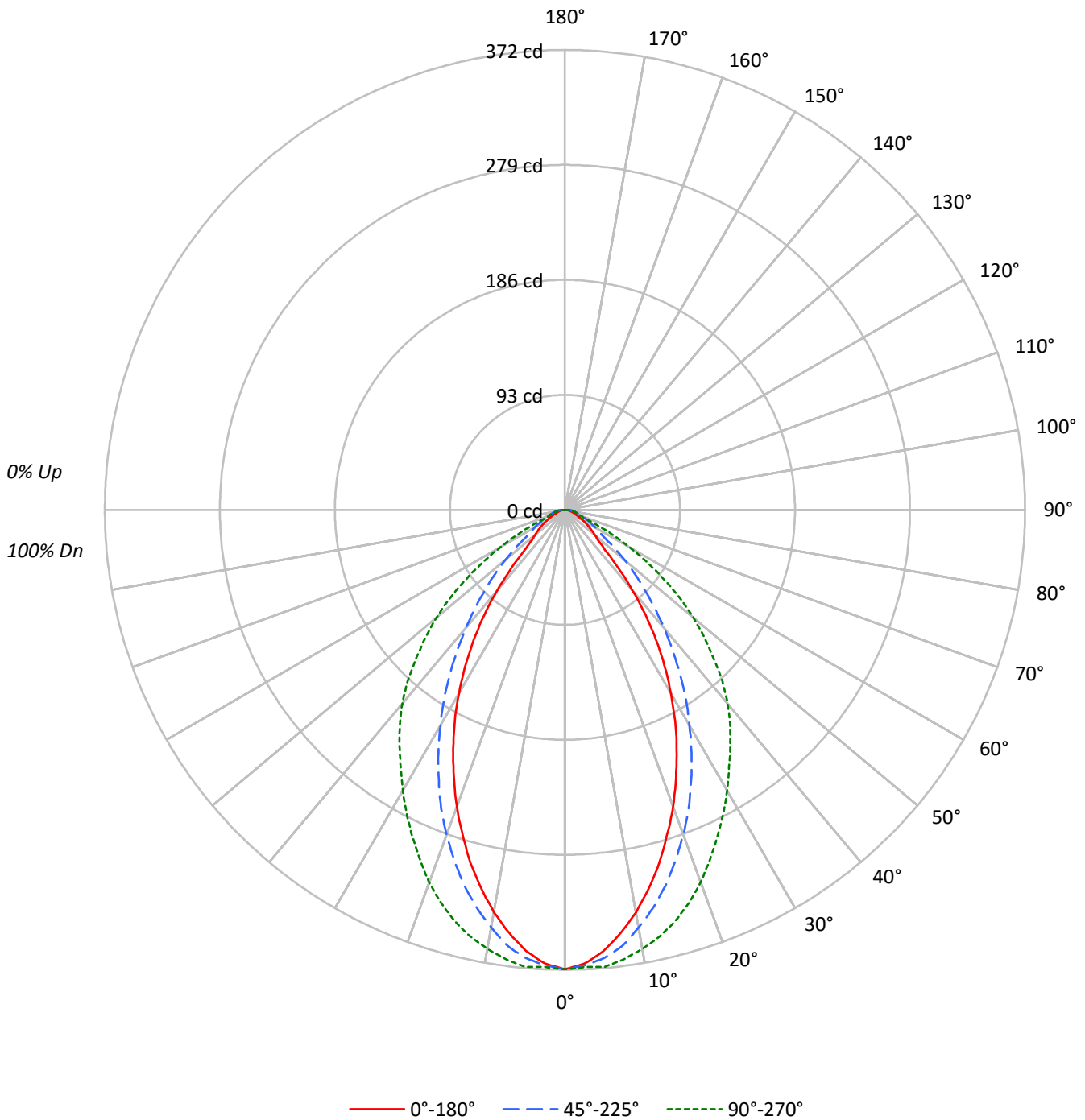
Lumens per Lamp: N/A
Luminaire Lumens: 498.8 lumens
Efficiency: N/A
Efficacy: 39.9 lumens/watt
Spacing Criteria (0/90/45): 0.83 / 1.08 / 0.98
Luminous Opening: Rectangular (W 0.23' x L: 4' x H: 0')
CIE Type: Direct

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: P1059198

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

Luminous Intensity Polar Plot





TEST NUMBER: P1059198

CATALOG NUMBER: S123RDR-S340D850-X4F0-XX-UDD-SVL-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				100
1	111	108	105	102	109	106	103	100	102	99	97	98	96	94	94	93	91	89				89
2	104	98	92	88	102	96	91	87	92	88	85	89	86	83	86	84	81	79				79
3	97	89	82	77	95	87	81	77	84	79	75	82	78	74	79	76	73	71				71
4	90	81	74	68	88	80	73	68	77	72	67	75	70	66	73	69	66	64				64
5	85	74	67	61	83	73	66	61	71	65	60	69	64	60	68	63	59	58				58
6	79	68	61	55	78	67	60	55	66	59	55	64	59	54	63	58	54	52				52
7	74	63	56	51	73	62	55	50	61	55	50	60	54	50	58	53	49	48				48
8	70	58	51	46	69	58	51	46	57	50	46	55	50	46	54	49	45	44				44
9	66	54	47	43	65	54	47	43	53	47	42	52	46	42	51	46	42	40				40
10	62	51	44	39	61	50	44	39	49	43	39	49	43	39	48	43	39	37				37

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	4363	4363	4363
5°	4222	4288	4374
10°	3941	4090	4298
15°	3591	3822	4187
20°	3195	3495	4009
25°	2769	3128	3779
30°	2323	2729	3555
35°	1839	2322	3341
40°	1301	1910	3135
45°	767	1510	2821
50°	574	1147	2472
55°	481	776	1984
60°	390	662	1409
65°	308	564	745
70°	268	491	460
75°	250	463	440
80°	250	500	440
85°	310	741	566

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°
 Vertical Angle: 45°
 Luminance: 2821 cd/sqm



TEST NUMBER: P1059198

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

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	34.2	6.9
10°-20°	88.9	17.8
20°-30°	113.2	22.7
30°-40°	106.5	21.3
40°-50°	76.7	15.4
50°-60°	44.3	8.9
60°-70°	20.2	4.1
70°-80°	10.1	2.0
80°-90°	4.8	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°	236.3	47.4
0°-40°	342.7	68.7
0°-60°	463.7	93.0
0°-90°	498.8	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	498.8	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	372	372	372	372	372	
5°	358	364	364	367	371	33
15°	295	306	314	332	344	82
25°	214	225	241	268	292	98
35°	128	139	162	199	233	80
45°	46	58	91	137	170	39
55°	24	24	38	72	97	21
65°	11	16	20	23	27	11
75°	6	11	10	10	10	6
85°	2	5	6	5	4	2
90°	0	0	0	0	0	



TEST NUMBER: P1059198

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

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	371.6	371.6	371.6	371.6	371.6
2.5°	367.4	372.1	368.8	369.3	370.2
5°	358.2	364.2	363.8	367.4	371.1
7.5°	345.3	352.2	355.9	361.4	366.5
10°	330.5	338.4	343.0	353.1	360.5
12.5°	313.4	323.6	329.6	343.0	353.6
15°	295.4	306.1	314.4	331.9	344.4
17.5°	275.1	286.7	297.3	318.1	333.3
20°	255.7	266.8	279.7	302.4	320.8
22.5°	234.5	246.5	261.3	285.3	306.1
25°	213.7	224.8	241.4	268.2	291.7
27.5°	193.0	204.0	221.6	251.1	277.0
30°	171.3	182.8	201.3	234.0	262.2
32.5°	150.0	161.1	181.9	217.4	247.0
35°	128.3	139.4	162.0	199.4	233.1
37.5°	107.1	118.6	142.6	184.6	219.3
40°	84.9	97.4	124.6	169.4	204.5
42.5°	64.2	77.6	106.6	153.7	188.3
45°	46.2	57.7	90.9	136.6	169.9
47.5°	36.0	42.0	76.6	119.1	152.8
50°	31.4	32.3	62.8	102.9	135.3
52.5°	27.2	28.2	49.4	87.7	116.8
55°	23.5	24.5	37.9	72.0	96.9
57.5°	19.8	21.2	31.4	57.2	78.0
60°	16.6	18.5	28.2	43.9	60.0
62.5°	13.4	16.6	24.0	32.3	42.9
65°	11.1	15.7	20.3	22.6	26.8
67.5°	9.2	14.3	17.1	16.2	15.7
70°	7.8	12.9	14.3	12.9	13.4
72.5°	6.5	12.0	12.0	11.1	11.1
75°	5.5	10.6	10.2	9.7	9.7
77.5°	4.6	9.2	8.8	8.3	7.8
80°	3.7	7.4	7.4	6.9	6.5
82.5°	3.2	6.0	6.0	6.0	5.1
85°	2.3	5.1	5.5	5.1	4.2
87.5°	1.8	4.6	4.6	4.2	2.8
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)