

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: P1059200

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

Issue Date: 8/7/2025

Test Information

Test Method: LM-79-2019
Report Number: P1059200
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2406-143-67)
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-S
Description: DEFINE 3 SILVER REGRESSED DIRECT RECESSED HOUSING WITH WHITE STRAIGHT BLADE
LOUVER WITH DIFFUSER
CORE LIGHT ENGINE
Light Source: 5000K CCT, 80 CRI LEDS
Ballast/Driver: -

Summary

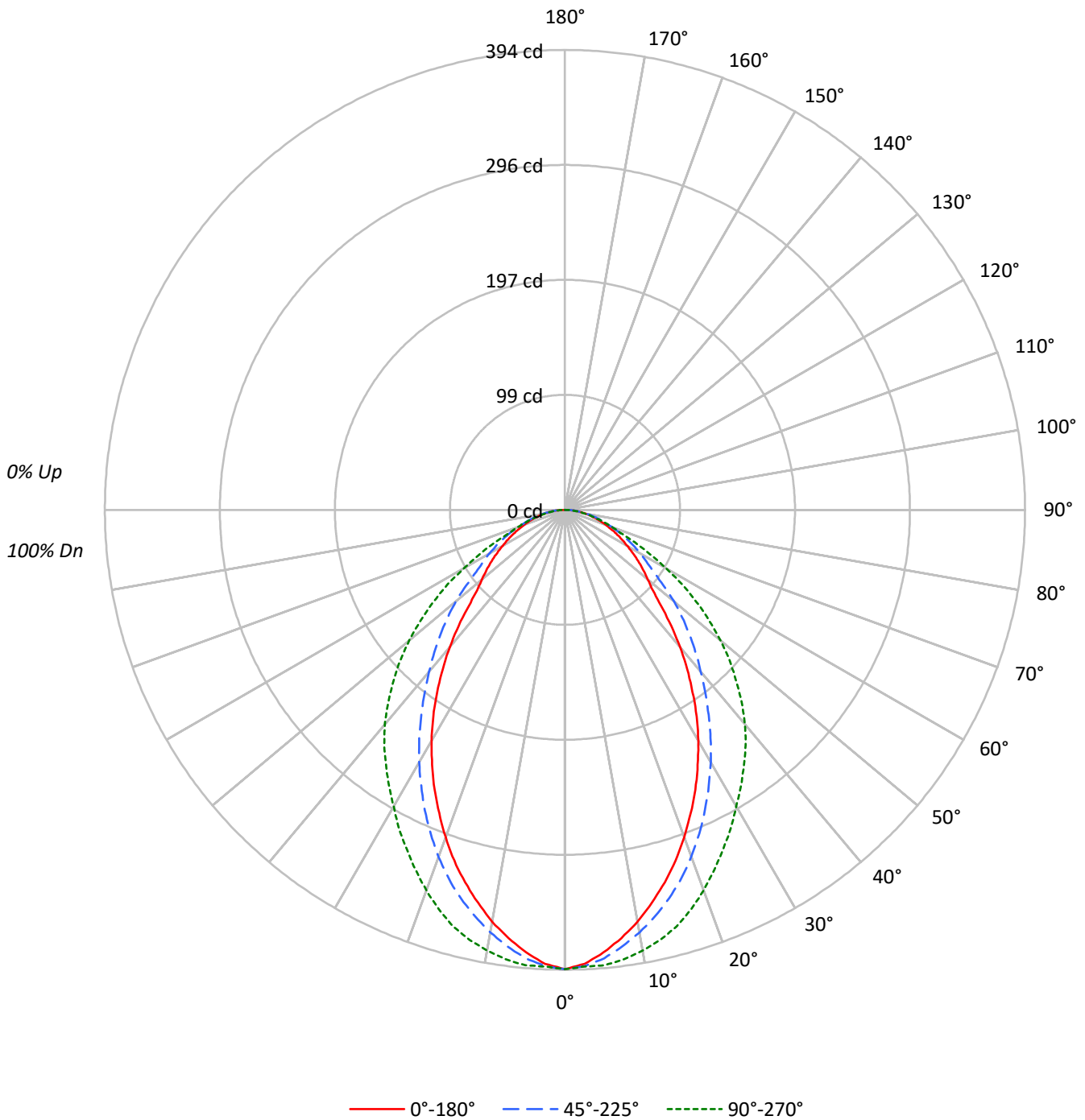
Lumens per Lamp: N/A
Luminaire Lumens: 710.8 lumens
Efficiency: N/A
Efficacy: 56.9 lumens/watt
Spacing Criteria (0/90/45): 0.93 / 1.12 / 1.1
Luminous Opening: Rectangular (W 0.23' x L: 4' x H: 0')
CIE Type: Direct

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

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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	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	110	106	102	99	108	104	100	97	100	97	94	96	93	91	92	90	89	87				
2	102	94	88	83	99	92	87	82	89	84	80	86	82	78	83	80	77	75				
3	94	84	77	71	91	83	76	71	80	74	69	77	72	68	75	71	67	65				
4	87	76	68	62	84	74	67	61	72	66	61	70	64	60	68	63	59	57				
5	80	69	60	54	78	68	60	54	66	59	54	64	58	53	62	57	53	51				
6	75	63	54	48	73	62	54	48	60	53	48	58	52	47	57	51	47	45				
7	70	57	49	44	68	56	49	43	55	48	43	54	47	43	52	47	43	41				
8	65	53	45	39	64	52	45	39	51	44	39	50	43	39	48	43	39	37				
9	61	49	41	36	60	48	41	36	47	40	36	46	40	36	45	39	35	34				
10	58	45	38	33	56	45	38	33	44	37	33	43	37	33	42	37	33	31				

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	4621	4621	4621
5°	4486	4545	4616
10°	4273	4383	4570
15°	4015	4189	4492
20°	3730	3954	4335
25°	3424	3676	4154
30°	3096	3384	3978
35°	2731	3075	3829
40°	2347	2771	3677
45°	1930	2498	3447
50°	1693	2225	3177
55°	1568	1898	2815
60°	1442	1745	2330
65°	1345	1603	1834
70°	1267	1456	1456
75°	1193	1338	1257
80°	1123	1217	1062
85°	1051	1186	808

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°
 Vertical Angle: 45°
 Luminance: 3447 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	36.4	5.1
10°-20°	97.5	13.7
20°-30°	132.2	18.6
30°-40°	138.3	19.5
40°-50°	119.9	16.9
50°-60°	89.2	12.6
60°-70°	57.2	8.1
70°-80°	30.7	4.3
80°-90°	9.3	1.3
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°	266.2	37.4
0°-40°	404.4	56.9
0°-60°	613.6	86.3
0°-90°	710.8	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	710.8	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	394	394	394	394	394	
5°	381	387	386	388	392	36
15°	330	338	345	358	370	93
25°	264	273	284	303	321	121
35°	190	200	214	242	267	119
45°	116	125	150	183	208	91
55°	77	78	93	119	138	69
65°	48	53	58	61	66	48
75°	26	30	30	28	28	28
85°	8	10	9	7	6	9
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	393.5	393.5	393.5	393.5	393.5
2.5°	389.3	394.9	391.2	391.2	391.6
5°	380.6	387.0	385.6	388.4	391.6
7.5°	370.0	376.9	377.3	383.8	388.4
10°	358.4	365.3	367.6	376.9	383.3
12.5°	344.6	352.4	356.6	368.1	377.3
15°	330.3	338.1	344.6	358.4	369.5
17.5°	315.1	322.9	331.2	346.9	358.9
20°	298.5	306.8	316.4	332.1	346.9
22.5°	281.4	290.2	300.3	317.4	334.0
25°	264.3	272.6	283.7	302.6	320.6
27.5°	246.3	255.1	266.6	287.4	307.7
30°	228.3	237.1	249.6	271.7	293.4
32.5°	209.9	218.7	232.0	256.9	280.5
35°	190.5	199.7	214.5	241.7	267.1
37.5°	172.1	180.8	197.4	227.4	254.2
40°	153.1	162.4	180.8	213.1	239.9
42.5°	134.7	143.9	165.6	197.9	224.2
45°	116.2	125.0	150.4	182.7	207.6
47.5°	101.9	108.4	136.1	166.5	191.4
50°	92.7	95.0	121.8	150.8	173.9
52.5°	84.4	86.3	106.1	135.2	155.9
55°	76.6	78.4	92.7	119.0	137.5
57.5°	68.7	71.0	82.6	102.4	119.0
60°	61.4	64.1	74.3	87.6	99.2
62.5°	54.9	58.1	66.0	74.3	82.1
65°	48.4	52.6	57.7	61.4	66.0
67.5°	42.4	47.1	49.8	50.7	51.2
70°	36.9	41.5	42.4	42.4	42.4
72.5°	31.4	36.4	35.5	35.1	34.6
75°	26.3	30.4	29.5	28.1	27.7
77.5°	21.2	24.9	23.5	22.6	21.2
80°	16.6	19.4	18.0	17.1	15.7
82.5°	12.5	14.3	12.9	12.0	10.6
85°	7.8	9.7	8.8	7.4	6.0
87.5°	4.2	5.5	4.6	4.2	2.3
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)