

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: P1055606

Luminaire Tested: S123R3DR-S340D835-X4F0-XX-UDD-FLL-S

Issue Date: 7/25/2025

Test Information

Test Method: LM-79-2019
Report Number: P1055606
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2503-402-6)
Test Lab: INNOVATION CENTER
Issue Date: 7/25/2025
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: NEO-RAY
Catalog Number: S123R3DR-S340D835-X4F0-XX-UDD-FLL-S
Description: DEFINE 3, SILVER 3-INCH REGRESSED DIRECT RECESSED HOUSING WITH FROSTED LENS
CORE LIGHT ENGINE
Light Source: 3500K CCT, 80 CRI LEDS
Ballast/Driver: -

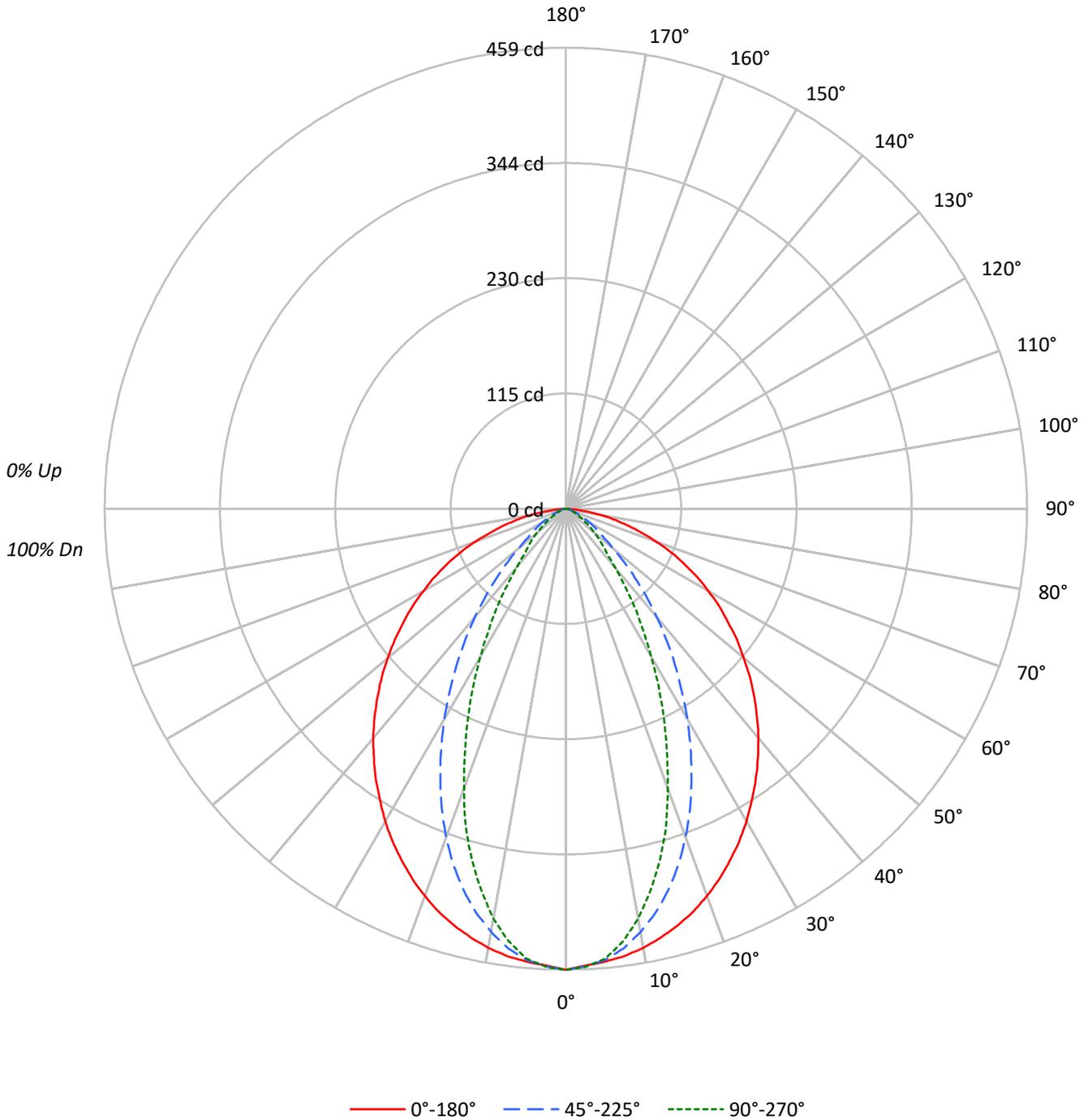
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 638.6 lumens
Efficiency: N/A
Efficacy: 50.7 lumens/watt
Spacing Criteria (0/90/45): 1.17 / 0.77 / 0.94
Luminous Opening: Rectangular (W 0.23' x L: 3.9' x H: 0')
CIE Type: Direct

Input Watts (W): 12.6
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: P1055606
CATALOG NUMBER: S123R3DR-S340D835-X4F0-XX-UDD-FLL-S

Luminous Intensity Polar Plot





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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																												
1	111	108	104	102	109	106	103	100	101	99	97	98	96	94	94	93	91	89																												
2	104	97	92	87	101	95	90	86	92	88	84	89	85	82	86	83	81	79																												
3	96	88	81	76	94	86	80	76	84	78	74	81	77	73	79	75	72	70																												
4	90	80	73	67	88	79	72	67	76	71	66	74	69	65	72	68	64	62																												
5	84	73	66	60	82	72	65	60	70	64	59	68	63	59	67	62	58	56																												
6	78	67	60	54	77	66	59	54	65	58	53	63	57	53	62	57	53	51																												
7	73	62	54	49	72	61	54	49	60	53	49	58	53	48	57	52	48	46																												
8	69	57	50	45	68	57	50	45	56	49	45	54	49	44	53	48	44	42																												
9	65	53	46	41	64	53	46	41	52	45	41	51	45	41	50	45	41	39																												
10	62	50	43	38	60	49	43	38	48	42	38	48	42	38	47	42	38	36																												

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	5536	5536	5536
5°	5479	5457	5441
10°	5436	5239	5073
15°	5362	4912	4515
20°	5265	4467	3803
25°	5142	3931	3069
30°	5005	3369	2364
35°	4850	2780	1749
40°	4693	2213	1191
45°	4520	1656	899
50°	4335	1152	701
55°	4145	841	513
60°	3947	629	367
65°	3711	422	285
70°	3359	307	229
75°	2897	224	182
80°	2326	181	153
85°	1203	180	124

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 4520 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	42.4	6.6
10°-20°	110.5	17.3
20°-30°	138.8	21.7
30°-40°	129.3	20.2
40°-50°	99.0	15.5
50°-60°	65.8	10.3
60°-70°	35.5	5.6
70°-80°	14.5	2.3
80°-90°	2.8	0.4
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°	291.8	45.7
0°-40°	421.1	65.9
0°-60°	585.8	91.7
0°-90°	638.6	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	638.6	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	459	459	459	459	459	
5°	453	458	451	449	450	43
15°	430	423	394	370	362	121
25°	386	360	296	246	231	178
35°	330	281	189	134	119	206
45°	265	196	97	57	53	204
55°	197	114	40	28	24	177
65°	130	44	15	11	10	129
75°	62	10	5	4	4	67
85°	9	1	1	1	1	13
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	459.2	459.2	459.2	459.2	459.2
2.5°	455.3	460.9	456.2	456.6	456.6
5°	452.7	457.5	450.9	449.2	449.6
7.5°	449.2	452.2	441.4	435.7	434.8
10°	444.0	444.8	427.9	417.8	414.4
12.5°	437.4	434.4	412.2	395.6	389.1
15°	429.6	422.6	393.5	370.4	361.7
17.5°	420.9	409.1	372.1	342.1	331.7
20°	410.4	393.9	348.2	310.8	296.4
22.5°	399.1	377.8	323.0	278.6	262.5
25°	386.5	360.4	295.5	246.4	230.7
27.5°	373.5	341.7	268.6	215.9	199.8
30°	359.5	322.5	242.0	186.3	169.8
32.5°	344.3	301.6	214.6	158.9	142.3
35°	329.5	280.7	188.9	133.6	118.8
37.5°	313.8	259.8	164.1	111.4	94.9
40°	298.2	238.5	140.6	89.7	75.7
42.5°	281.6	217.2	118.4	71.4	60.5
45°	265.1	195.9	97.1	57.0	52.7
47.5°	248.5	174.5	78.3	49.2	44.8
50°	231.1	154.1	61.4	41.8	37.4
52.5°	214.6	133.6	47.9	34.4	30.5
55°	197.2	114.0	40.0	27.9	24.4
57.5°	181.1	94.0	33.1	21.8	19.2
60°	163.7	76.2	26.1	17.0	15.2
62.5°	147.1	59.6	20.0	13.5	12.2
65°	130.1	44.0	14.8	10.9	10.0
67.5°	113.2	31.8	11.3	8.7	8.3
70°	95.3	23.9	8.7	7.0	6.5
72.5°	78.3	17.0	6.5	5.7	5.2
75°	62.2	10.4	4.8	4.4	3.9
77.5°	47.9	6.1	3.5	3.5	3.0
80°	33.5	3.5	2.6	2.6	2.2
82.5°	20.5	2.2	1.7	1.7	1.7
85°	8.7	1.3	1.3	1.3	0.9
87.5°	1.3	0.4	0.4	0.4	0.4
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)