

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: P1055647

Luminaire Tested: S123R3DR-S560D935-X4F0-XX-UDD-FLL-B

Issue Date: 7/25/2025

Test Information

Test Method: LM-79-2019
Report Number: P1055647
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2503-402-5)
Test Lab: INNOVATION CENTER
Issue Date: 7/25/2025
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: NEO-RAY
Catalog Number: S123R3DR-S560D935-X4F0-XX-UDD-FLL-B
Description: DEFINE 3, BLACK 3-INCH REGRESSED DIRECT RECESSED HOUSING WITH FROSTED LENS
CORE LIGHT ENGINE
Light Source: 3500K CCT, 90 CRI LEDS
Ballast/Driver: -

Summary

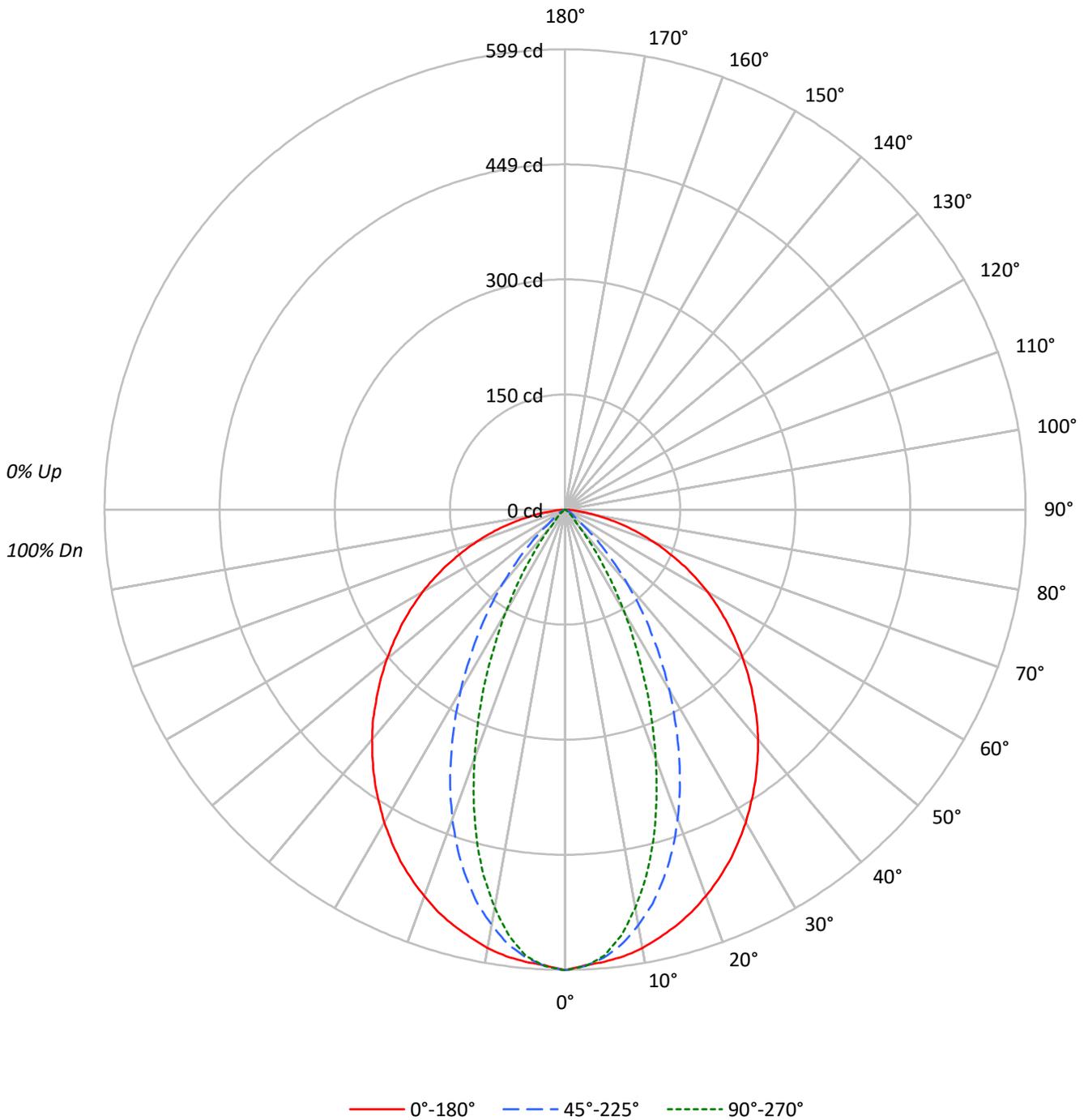
Lumens per Lamp: N/A
Luminaire Lumens: 701.5 lumens
Efficiency: N/A
Efficacy: 36.7 lumens/watt
Spacing Criteria (0/90/45): 1.17 / 0.7 / 0.86
Luminous Opening: Rectangular (W 0.23' x L: 3.9' x H: 0')
CIE Type: Direct

Input Watts (W): 19.1
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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CATALOG NUMBER: S123R3DR-S560D935-X4F0-XX-UDD-FLL-B

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	112	108	105	103	109	106	104	101	102	100	98	98	97	95	95	93	92	90				
2	105	99	94	89	102	97	92	88	93	90	86	90	87	84	87	85	83	81				
3	98	90	84	79	96	88	83	78	86	81	77	83	79	76	81	77	74	73				
4	92	82	75	70	90	81	75	70	79	73	69	77	72	68	75	71	67	65				
5	86	76	69	63	84	75	68	63	73	67	62	71	66	62	69	65	61	59				
6	81	70	63	58	79	69	62	57	67	61	57	66	61	56	64	60	56	54				
7	76	65	58	53	74	64	57	52	63	57	52	61	56	52	60	55	52	50				
8	71	60	53	48	70	60	53	48	58	52	48	57	52	48	56	51	48	46				
9	68	56	49	45	66	56	49	45	55	49	45	54	48	44	53	48	44	43				
10	64	53	46	42	63	52	46	42	51	46	41	51	45	41	50	45	41	40				

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	7227	7227	7227
5°	7149	7081	7058
10°	7094	6721	6439
15°	6992	6193	5549
20°	6868	5496	4420
25°	6725	4657	3259
30°	6545	3774	2138
35°	6351	2873	1172
40°	6146	1986	401
45°	5905	1156	234
50°	5668	454	141
55°	5423	288	65
60°	5143	181	29
65°	4790	88	17
70°	4297	42	21
75°	3647	28	28
80°	2722	42	0
85°	1037	0	0

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 5905 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	55.0	7.8
10°-20°	139.5	19.9
20°-30°	166.4	23.7
30°-40°	141.1	20.1
40°-50°	95.9	13.7
50°-60°	59.4	8.5
60°-70°	30.1	4.3
70°-80°	12.3	1.7
80°-90°	1.9	0.3
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°	360.8	51.4
0°-40°	501.9	71.5
0°-60°	657.2	93.7
0°-90°	701.5	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	701.5	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	599	599	599	599	599	
5°	591	596	585	581	583	56
15°	560	546	496	457	445	158
25°	506	458	350	270	245	233
35°	432	346	195	105	80	270
45°	346	227	68	17	14	268
55°	258	114	14	5	3	231
65°	168	28	3	1	1	166
75°	78	5	1	1	1	83
85°	8	0	0	1	0	13
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	599.4	599.4	599.4	599.4	599.4
2.5°	593.8	601.9	595.0	594.4	595.0
5°	590.7	596.3	585.1	580.7	583.2
7.5°	586.3	588.8	570.2	559.0	559.0
10°	579.5	577.6	549.0	530.4	526.0
12.5°	570.2	562.7	525.4	496.2	488.1
15°	560.2	545.9	496.2	457.0	444.6
17.5°	549.0	527.3	464.5	413.5	395.4
20°	535.3	506.1	428.4	366.2	344.5
22.5°	521.0	483.1	390.5	317.7	293.5
25°	505.5	458.2	350.1	270.5	245.0
27.5°	488.1	432.1	310.3	225.1	197.1
30°	470.1	404.8	271.1	181.6	153.6
32.5°	450.8	376.2	231.9	141.8	115.6
35°	431.5	346.3	195.2	105.1	79.6
37.5°	411.0	316.5	159.8	72.7	50.4
40°	390.5	287.3	126.2	46.0	25.5
42.5°	369.3	256.8	95.8	23.0	17.4
45°	346.3	226.9	67.8	16.8	13.7
47.5°	324.6	198.3	44.8	13.7	10.6
50°	302.2	169.7	24.2	9.9	7.5
52.5°	279.8	142.4	17.4	7.5	5.0
55°	258.0	114.4	13.7	5.0	3.1
57.5°	235.6	90.2	10.6	3.1	1.9
60°	213.3	66.5	7.5	1.9	1.2
62.5°	190.9	46.0	5.0	1.2	0.6
65°	167.9	28.0	3.1	0.6	0.6
67.5°	144.2	19.3	1.9	0.6	0.6
70°	121.9	13.7	1.2	0.6	0.6
72.5°	99.5	8.7	0.6	0.6	0.0
75°	78.3	5.0	0.6	0.6	0.6
77.5°	57.8	1.9	0.6	0.6	0.0
80°	39.2	0.6	0.6	0.6	0.0
82.5°	21.8	0.0	0.6	0.6	0.0
85°	7.5	0.0	0.0	0.6	0.0
87.5°	0.0	0.0	0.0	0.6	0.0
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)