

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: P1055629

Luminaire Tested: S123R3DR-S560D830-X4F0-XX-UDD-FLL-B

Issue Date: 7/25/2025

Test Information

Test Method: LM-79-2019
Report Number: P1055629
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-S560D830-X4F0-XX-UDD-FLL-B
Description: DEFINE 3, BLACK 3-INCH REGRESSED DIRECT RECESSED HOUSING WITH FROSTED LENS
CORE LIGHT ENGINE
Light Source: 3000K CCT, 80 CRI LEDS
Ballast/Driver: -

Summary

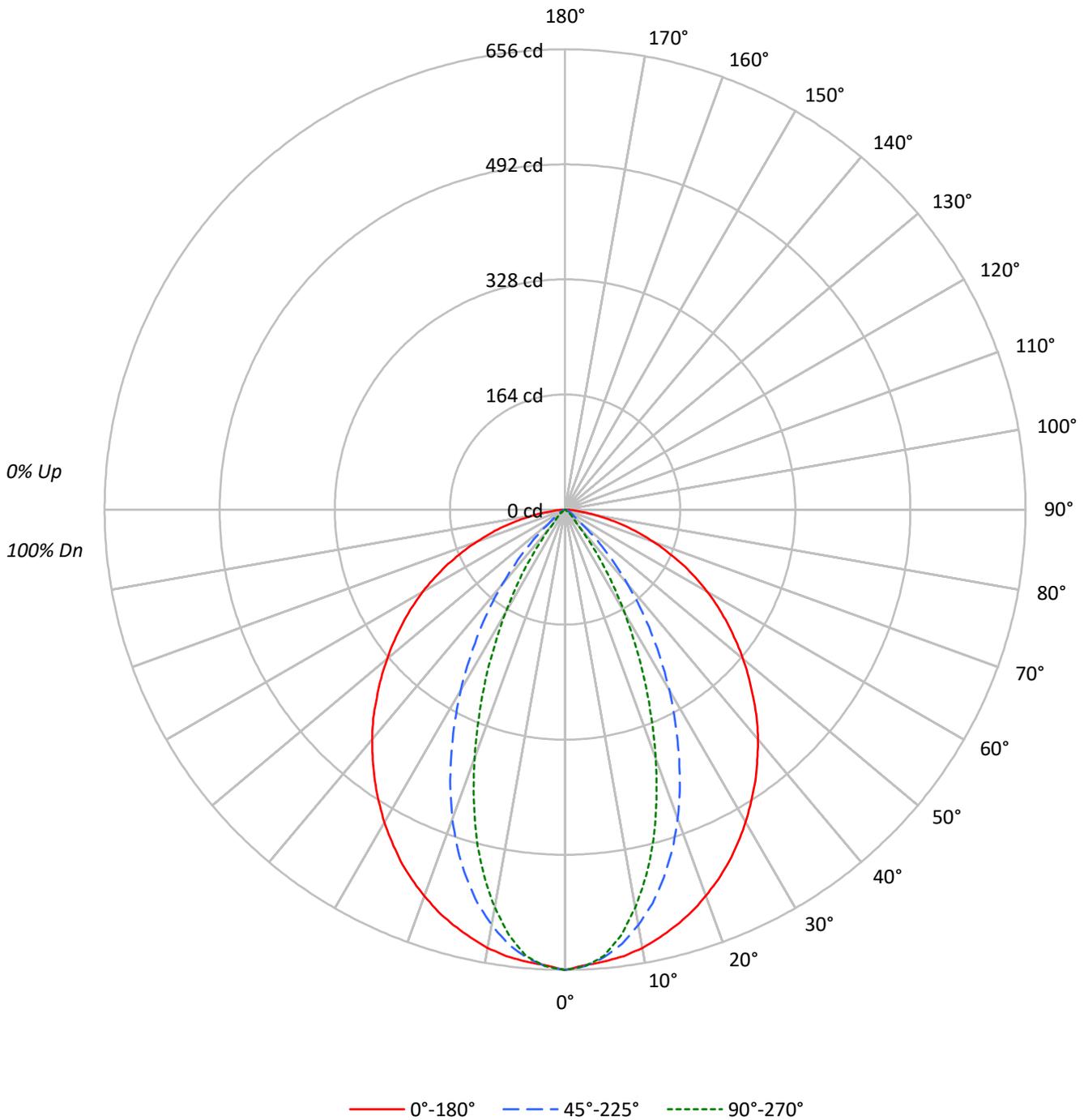
Lumens per Lamp: N/A
Luminaire Lumens: 768.0 lumens
Efficiency: N/A
Efficacy: 40.2 lumens/watt
Spacing Criteria (0/90/45): 1.17 / 0.7 / 0.86
Luminous Opening: Rectangular (W 0.23' x L: 3.9' x H: 0')
CIE Type: Direct

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

TEST NUMBER: P1055629

CATALOG NUMBER: S123R3DR-S560D830-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									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	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	57	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°	7910	7910	7910
5°	7825	7752	7726
10°	7767	7358	7049
15°	7655	6780	6075
20°	7518	6017	4838
25°	7362	5098	3568
30°	7164	4132	2340
35°	6953	3145	1282
40°	6727	2175	439
45°	6464	1265	256
50°	6205	497	154
55°	5938	315	71
60°	5630	198	34
65°	5243	97	20
70°	4702	49	25
75°	3997	33	33
80°	2979	49	0
85°	1134	0	0

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 6464 cd/sqm



TEST NUMBER: P1055629

CATALOG NUMBER: S123R3DR-S560D830-X4F0-XX-UDD-FLL-B

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	60.2	7.8
10°-20°	152.7	19.9
20°-30°	182.1	23.7
30°-40°	154.5	20.1
40°-50°	105.0	13.7
50°-60°	65.1	8.5
60°-70°	33.0	4.3
70°-80°	13.4	1.8
80°-90°	2.1	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°	394.9	51.4
0°-40°	549.4	71.5
0°-60°	719.5	93.7
0°-90°	768.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	768.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	656	656	656	656	656	
5°	647	653	640	636	638	61
15°	613	598	543	500	487	173
25°	553	502	383	296	268	255
35°	472	379	214	115	87	295
45°	379	248	74	18	15	293
55°	282	125	15	5	3	252
65°	184	31	3	1	1	182
75°	86	5	1	1	1	91
85°	8	0	0	1	0	15
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	656.1	656.1	656.1	656.1	656.1
2.5°	650.0	658.9	651.4	650.7	651.4
5°	646.6	652.7	640.5	635.7	638.4
7.5°	641.9	644.6	624.2	611.9	611.9
10°	634.4	632.3	601.0	580.6	575.8
12.5°	624.2	616.0	575.1	543.2	534.3
15°	613.3	597.6	543.2	500.3	486.7
17.5°	601.0	577.2	508.4	452.6	432.9
20°	586.0	554.0	469.0	400.9	377.1
22.5°	570.4	528.9	427.4	347.8	321.3
25°	553.4	501.6	383.2	296.1	268.2
27.5°	534.3	473.1	339.6	246.4	215.8
30°	514.6	443.1	296.8	198.7	168.1
32.5°	493.5	411.8	253.9	155.2	126.6
35°	472.4	379.1	213.7	115.0	87.1
37.5°	449.9	346.5	174.9	79.6	55.1
40°	427.4	314.5	138.2	50.4	27.9
42.5°	404.3	281.1	104.8	25.2	19.1
45°	379.1	248.4	74.2	18.4	15.0
47.5°	355.3	217.1	49.0	15.0	11.6
50°	330.8	185.8	26.5	10.9	8.2
52.5°	306.3	155.9	19.1	8.2	5.4
55°	282.5	125.2	15.0	5.4	3.4
57.5°	258.0	98.7	11.6	3.4	2.0
60°	233.5	72.8	8.2	2.0	1.4
62.5°	209.0	50.4	5.4	1.4	0.7
65°	183.8	30.6	3.4	0.7	0.7
67.5°	157.9	21.1	2.0	0.7	0.7
70°	133.4	15.0	1.4	0.7	0.7
72.5°	108.9	9.5	0.7	0.7	0.0
75°	85.8	5.4	0.7	0.7	0.7
77.5°	63.3	2.0	0.7	0.7	0.0
80°	42.9	0.7	0.7	0.7	0.0
82.5°	23.8	0.0	0.7	0.7	0.0
85°	8.2	0.0	0.0	0.7	0.0
87.5°	0.0	0.0	0.0	0.7	0.0
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)