

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: P1055173

Luminaire Tested: S122R3DR-S290D835-X4F0-XX-UDD-FLL-B

Issue Date: 7/25/2025

Test Information

Test Method: LM-79-2019
Report Number: P1055173
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2503-402-2)
Test Lab: INNOVATION CENTER
Issue Date: 7/25/2025
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: NEO-RAY
Catalog Number: S122R3DR-S290D835-X4F0-XX-UDD-FLL-B
Description: DEFINE 2, BLACK 3-INCH REGRESSED DIRECT RECESSED HOUSING WITH FROSTED LENS
CORE LIGHT ENGINE
Light Source: 3500K CCT, 80 CRI LEDS
Ballast/Driver: -

Summary

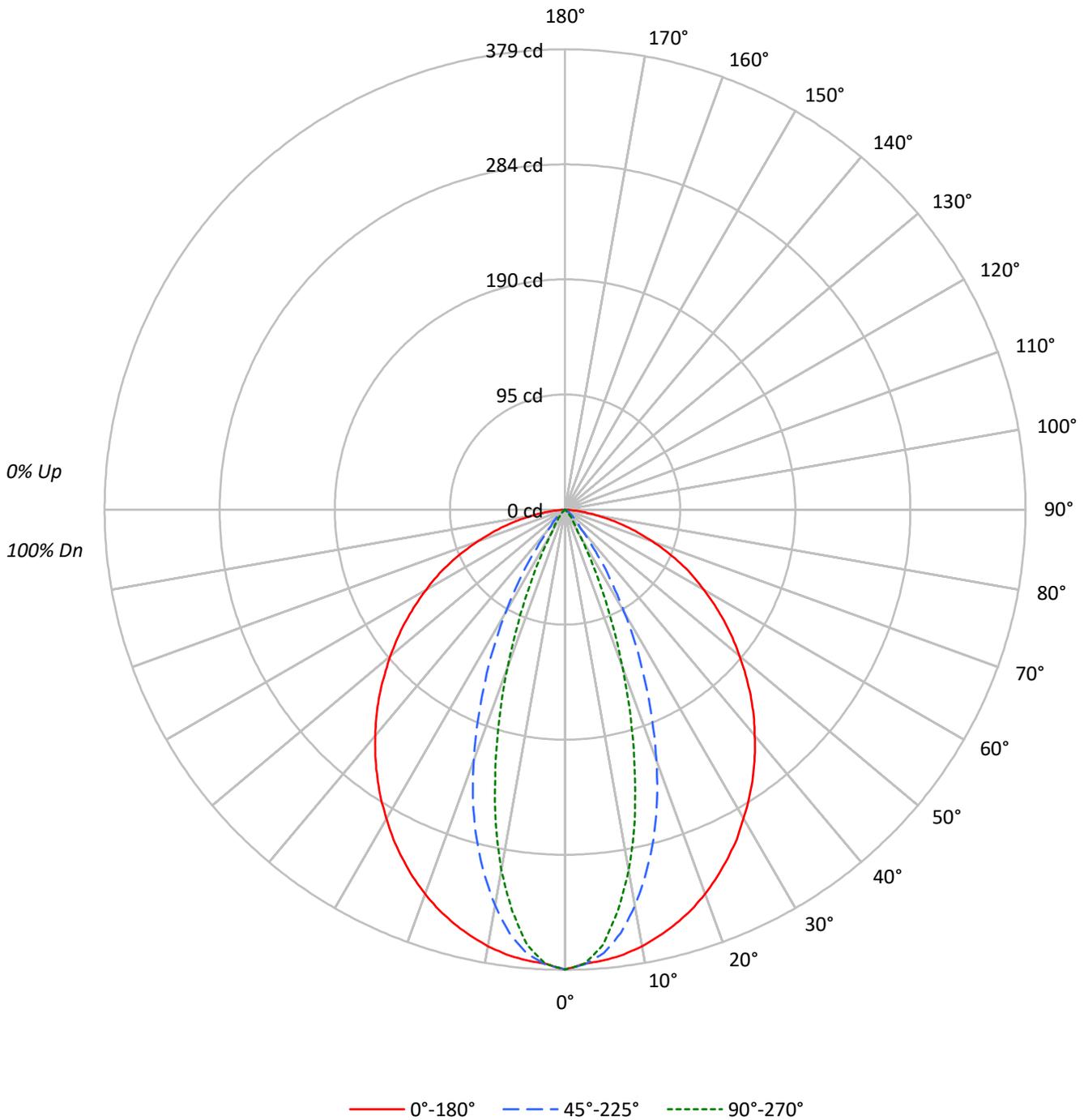
Lumens per Lamp: N/A
Luminaire Lumens: 344.5 lumens
Efficiency: N/A
Efficacy: 27.3 lumens/watt
Spacing Criteria (0/90/45): 1.16 / 0.56 / 0.7
Luminous Opening: Rectangular (W 0.15' x L: 3.9' x H: 0')
CIE Type: Direct

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: P1055173

CATALOG NUMBER: S122R3DR-S290D835-X4F0-XX-UDD-FLL-B

Luminous Intensity Polar Plot



TEST NUMBER: P1055173

CATALOG NUMBER: S122R3DR-S290D835-X4F0-XX-UDD-FLL-B

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	109	106	103	110	106	104	101	102	100	98	99	97	95	95	94	92	91																												
2	105	99	94	90	103	97	93	89	94	90	87	91	88	85	88	86	83	81																												
3	98	91	85	80	96	89	84	79	86	82	78	84	80	77	82	78	75	74																												
4	92	83	77	72	90	82	76	71	80	75	70	78	73	70	76	72	69	67																												
5	87	77	70	65	85	76	70	65	74	69	64	72	68	64	71	67	63	61																												
6	82	72	65	60	80	71	64	59	69	63	59	68	63	59	66	62	58	57																												
7	77	67	60	55	76	66	59	55	65	59	55	63	58	54	62	57	54	52																												
8	73	62	56	51	72	62	55	51	61	55	51	60	54	50	59	54	50	49																												
9	70	59	52	48	68	58	52	47	57	51	47	56	51	47	55	50	47	45																												
10	66	55	49	45	65	55	49	44	54	48	44	53	48	44	52	48	44	43																												

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	7175	7175	7175
5°	7086	6970	6837
10°	7026	6372	5802
15°	6924	5516	4345
20°	6792	4432	2782
25°	6625	3249	1428
30°	6427	2124	466
35°	6231	1177	273
40°	6007	475	151
45°	5785	316	59
50°	5529	180	27
55°	5275	86	13
60°	4998	34	0
65°	4703	18	0
70°	4221	22	0
75°	3631	29	0
80°	2749	0	0
85°	1130	87	0

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 5785 cd/sqm



TEST NUMBER: P1055173

CATALOG NUMBER: S122R3DR-S290D835-X4F0-XX-UDD-FLL-B

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	33.9	9.9
10°-20°	78.9	22.9
20°-30°	80.1	23.2
30°-40°	60.1	17.4
40°-50°	42.1	12.2
50°-60°	25.7	7.5
60°-70°	15.3	4.4
70°-80°	7.1	2.0
80°-90°	1.3	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°	192.9	56.0
0°-40°	253.0	73.4
0°-60°	320.8	93.1
0°-90°	344.5	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	344.5	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	379	379	379	379	379	
5°	373	376	366	360	360	35
15°	353	334	281	238	222	99
25°	317	261	155	89	68	146
35°	269	175	51	15	12	168
45°	216	93	12	4	2	166
55°	160	28	3	1	0	143
65°	105	8	0	0	0	103
75°	50	1	0	0	0	53
85°	5	0	0	0	0	9
90°	0	0	0	0	0	



TEST NUMBER: P1055173

CATALOG NUMBER: S122R3DR-S290D835-X4F0-XX-UDD-FLL-B

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	378.7	378.7	378.7	378.7	378.7
2.5°	374.3	380.0	374.8	373.9	374.3
5°	372.6	376.1	366.5	359.5	359.5
7.5°	369.5	369.5	351.7	337.3	333.0
10°	365.2	360.4	331.2	308.2	301.6
12.5°	359.5	348.2	307.3	274.6	264.2
15°	353.0	333.8	281.2	238.1	221.5
17.5°	345.6	317.7	252.0	198.5	179.3
20°	336.9	300.3	219.8	158.0	138.0
22.5°	327.3	281.2	187.2	121.9	100.5
25°	316.9	261.2	155.4	88.8	68.3
27.5°	306.0	240.3	126.2	60.9	41.8
30°	293.8	218.5	97.1	36.1	21.3
32.5°	282.0	197.6	72.7	19.6	15.7
35°	269.4	175.4	50.9	15.2	11.8
37.5°	256.4	154.5	31.3	11.3	8.7
40°	242.9	133.2	19.2	8.3	6.1
42.5°	229.8	113.2	15.2	5.7	3.9
45°	215.9	92.7	11.8	3.5	2.2
47.5°	201.5	74.0	8.7	2.2	1.3
50°	187.6	57.5	6.1	1.3	0.9
52.5°	173.7	42.2	3.9	0.9	0.4
55°	159.7	28.3	2.6	0.9	0.4
57.5°	145.8	20.0	1.7	0.4	0.4
60°	131.9	15.7	0.9	0.4	0.0
62.5°	118.8	12.2	0.9	0.4	0.4
65°	104.9	8.3	0.4	0.4	0.0
67.5°	90.1	5.2	0.4	0.4	0.0
70°	76.2	3.0	0.4	0.4	0.0
72.5°	62.7	1.7	0.4	0.4	0.0
75°	49.6	0.9	0.4	0.4	0.0
77.5°	37.0	0.4	0.0	0.4	0.0
80°	25.2	0.0	0.0	0.4	0.0
82.5°	14.8	0.0	0.0	0.4	0.0
85°	5.2	0.0	0.4	0.4	0.0
87.5°	0.0	0.0	0.4	0.4	0.0
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)