

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: P1055631

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

Issue Date: 7/25/2025

Test Information

Test Method: LM-79-2019
Report Number: P1055631
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2503-402-4)
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-W
Description: DEFINE 3, WHITE 3-INCH REGRESSED DIRECT RECESSED HOUSING WITH FROSTED LENS
CORE LIGHT ENGINE
Light Source: 3000K CCT, 80 CRI LEDS
Ballast/Driver: -

Summary

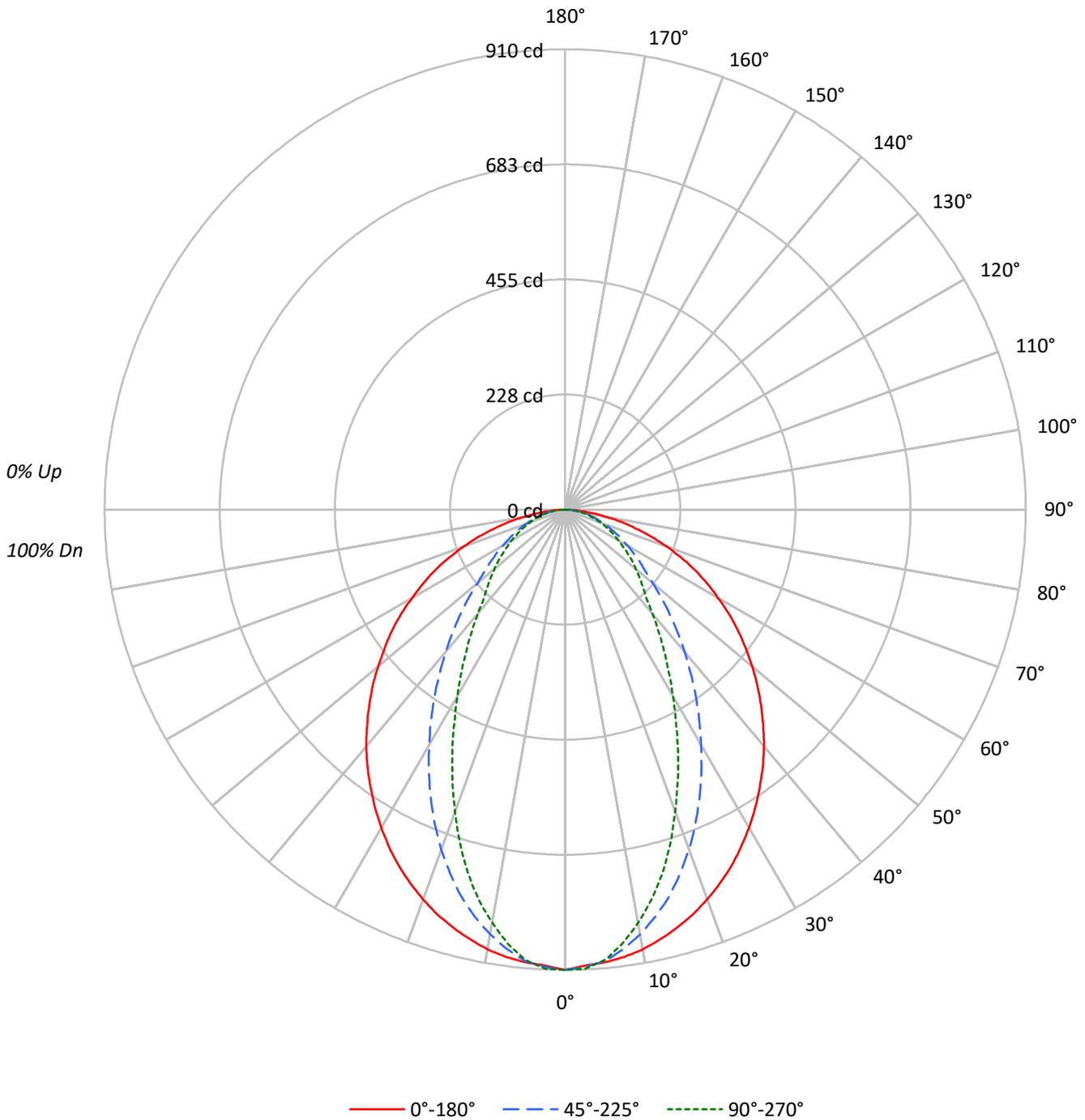
Lumens per Lamp: N/A
Luminaire Lumens: 1596.0 lumens
Efficiency: N/A
Efficacy: 83.6 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 0.83 / 1.02
Luminous Opening: Rectangular (W 0.23' x L: 3.9' x H: 0')
CIE Type: Direct

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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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	107	104	100	97	99	97	94	96	93	91	92	90	88	86				
2	101	94	88	83	99	92	87	82	89	84	80	85	82	78	83	79	76	74				
3	93	84	77	71	91	82	76	70	80	74	69	77	72	68	74	70	67	65				
4	86	75	68	61	84	74	67	61	72	65	60	70	64	59	67	63	59	57				
5	80	68	60	54	78	67	60	54	65	58	53	63	57	53	62	56	52	50				
6	75	62	54	48	73	61	54	48	60	53	48	58	52	47	57	51	47	45				
7	70	57	49	43	68	56	49	43	55	48	43	53	47	43	52	47	42	40				
8	65	53	45	39	64	52	44	39	51	44	39	49	43	39	48	43	39	37				
9	61	49	41	36	60	48	41	36	47	40	36	46	40	35	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°	10971	10971	10971
5°	10874	10849	10824
10°	10808	10442	10158
15°	10679	9889	9278
20°	10523	9179	8156
25°	10340	8357	7017
30°	10111	7476	5932
35°	9867	6611	5009
40°	9619	5774	4210
45°	9330	4979	3714
50°	9039	4239	3408
55°	8769	3777	3147
60°	8403	3414	2937
65°	8059	3127	2759
70°	7508	2880	2591
75°	6722	2665	2441
80°	5763	2458	2270
85°	4053	2255	2172

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 9330 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	84.4	5.3
10°-20°	223.2	14.0
20°-30°	294.0	18.4
30°-40°	298.4	18.7
40°-50°	259.4	16.3
50°-60°	203.2	12.7
60°-70°	138.1	8.7
70°-80°	74.8	4.7
80°-90°	20.6	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°	601.5	37.7
0°-40°	900.0	56.4
0°-60°	1362.5	85.4
0°-90°	1596.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1596.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	910	910	910	910	910	
5°	898	909	896	888	894	85
15°	856	843	792	754	743	241
25°	777	730	628	550	528	358
35°	670	591	449	364	340	419
45°	547	439	292	225	218	422
55°	417	290	180	153	150	372
65°	282	156	110	98	97	279
75°	144	72	57	53	52	154
85°	29	18	16	15	16	37
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	910.0	910.0	910.0	910.0	910.0
2.5°	902.5	914.1	905.3	905.9	908.7
5°	898.5	909.3	896.4	888.2	894.4
7.5°	892.3	900.5	876.7	863.7	865.8
10°	882.8	885.5	852.9	832.4	829.7
12.5°	869.9	865.1	824.3	794.3	789.6
15°	855.6	843.3	792.3	753.5	743.3
17.5°	839.2	818.8	754.8	707.2	691.5
20°	820.2	791.6	715.4	654.8	635.7
22.5°	799.8	763.0	672.5	601.0	581.3
25°	777.3	730.3	628.2	550.0	527.5
27.5°	752.8	697.7	583.3	499.6	474.4
30°	726.3	663.6	537.0	450.6	426.1
32.5°	699.0	627.6	492.8	405.0	381.2
35°	670.4	590.8	449.2	363.5	340.3
37.5°	641.2	553.4	407.0	324.0	302.2
40°	611.2	515.3	366.9	287.2	267.5
42.5°	579.2	477.1	328.1	252.5	237.5
45°	547.2	439.0	292.0	225.3	217.8
47.5°	515.3	400.2	258.0	206.2	199.4
50°	481.9	362.8	226.0	188.5	181.7
52.5°	449.2	326.0	199.4	171.5	166.8
55°	417.2	290.0	179.7	153.1	149.7
57.5°	383.9	254.6	160.0	138.9	134.8
60°	348.5	220.5	141.6	123.9	121.8
62.5°	316.5	188.5	125.2	110.9	108.9
65°	282.5	156.5	109.6	98.0	96.7
67.5°	247.8	130.0	95.3	85.8	85.1
70°	213.0	109.6	81.7	74.2	73.5
72.5°	179.0	90.5	68.7	64.0	62.6
75°	144.3	72.1	57.2	53.1	52.4
77.5°	113.0	55.8	45.6	42.9	42.2
80°	83.0	41.5	35.4	33.4	32.7
82.5°	54.5	28.6	25.2	23.8	23.8
85°	29.3	17.7	16.3	15.0	15.7
87.5°	10.2	7.5	7.5	6.8	7.5
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)