

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: P1055604

Luminaire Tested: S123R3DR-S340D830-X4F0-XX-UDD-FLL-W

Issue Date: 7/25/2025

Test Information

Test Method: LM-79-2019
Report Number: P1055604
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-S340D830-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

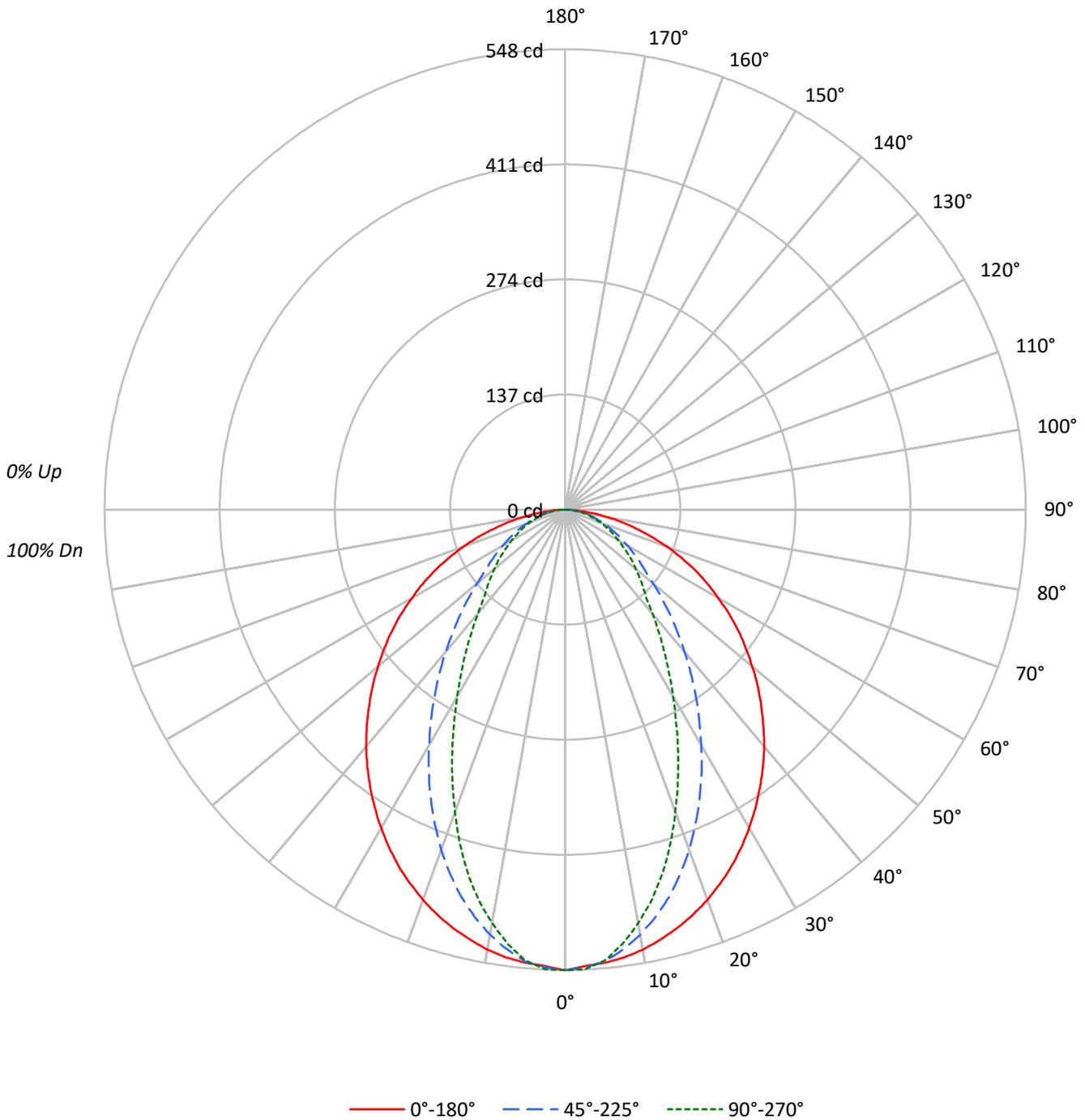
Lumens per Lamp: N/A
Luminaire Lumens: 962.0 lumens
Efficiency: N/A
Efficacy: 76.3 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 0.83 / 1.02
Luminous Opening: Rectangular (W 0.23' x L: 3.9' x H: 0')
CIE Type: Direct

Input Watts (W): 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

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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				100
1	110	106	102	99	107	104	100	97	99	97	94	96	93	91	92	90	88	86				86
2	101	94	88	83	99	92	87	82	89	84	80	85	82	78	83	79	76	74				74
3	93	84	77	71	91	82	76	70	80	74	69	77	72	68	74	70	67	65				65
4	86	75	68	61	84	74	67	61	72	65	60	70	64	59	67	63	59	57				57
5	80	68	60	54	78	67	60	54	65	58	53	63	57	53	62	56	52	50				50
6	75	62	54	48	73	61	54	48	60	53	48	58	52	47	57	51	47	45				45
7	70	57	49	43	68	56	49	43	55	48	43	53	47	43	52	47	42	40				40
8	65	53	45	39	64	52	44	39	51	44	39	49	43	39	48	43	39	37				37
9	61	49	41	36	60	48	41	36	47	40	36	46	40	35	45	39	35	34				34
10	58	45	38	33	56	45	38	33	44	37	33	43	37	33	42	37	33	31				31

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	6613	6613	6613
5°	6553	6539	6524
10°	6514	6293	6122
15°	6437	5960	5592
20°	6343	5532	4917
25°	6232	5038	4229
30°	6093	4506	3575
35°	5948	3986	3019
40°	5798	3480	2537
45°	5623	3001	2239
50°	5449	2555	2054
55°	5286	2276	1898
60°	5064	2057	1770
65°	4858	1886	1663
70°	4526	1734	1562
75°	4053	1607	1472
80°	3478	1479	1368
85°	2435	1356	1300

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 5623 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	50.8	5.3
10°-20°	134.5	14.0
20°-30°	177.2	18.4
30°-40°	179.9	18.7
40°-50°	156.3	16.3
50°-60°	122.5	12.7
60°-70°	83.2	8.7
70°-80°	45.1	4.7
80°-90°	12.4	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°	362.6	37.7
0°-40°	542.4	56.4
0°-60°	821.3	85.4
0°-90°	962.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	962.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	548	548	548	548	548	
5°	542	548	540	535	539	51
15°	516	508	478	454	448	145
25°	468	440	379	332	318	216
35°	404	356	271	219	205	253
45°	330	265	176	136	131	255
55°	252	175	108	92	90	224
65°	170	94	66	59	58	168
75°	87	44	34	32	32	93
85°	18	11	10	9	9	22
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	548.5	548.5	548.5	548.5	548.5
2.5°	544.0	551.0	545.6	546.0	547.7
5°	541.5	548.1	540.3	535.4	539.1
7.5°	537.8	542.8	528.4	520.6	521.8
10°	532.1	533.7	514.0	501.7	500.1
12.5°	524.3	521.4	496.8	478.8	475.9
15°	515.7	508.3	477.5	454.1	448.0
17.5°	505.8	493.5	455.0	426.2	416.8
20°	494.4	477.1	431.2	394.7	383.2
22.5°	482.0	459.9	405.3	362.3	350.4
25°	468.5	440.2	378.7	331.5	317.9
27.5°	453.7	420.5	351.6	301.1	285.9
30°	437.7	400.0	323.7	271.6	256.8
32.5°	421.3	378.3	297.0	244.1	229.7
35°	404.1	356.1	270.8	219.1	205.1
37.5°	386.5	333.5	245.3	195.3	182.2
40°	368.4	310.6	221.1	173.1	161.2
42.5°	349.1	287.6	197.7	152.2	143.2
45°	329.8	264.6	176.0	135.8	131.3
47.5°	310.6	241.2	155.5	124.3	120.2
50°	290.5	218.7	136.2	113.6	109.5
52.5°	270.8	196.5	120.2	103.4	100.5
55°	251.5	174.8	108.3	92.3	90.3
57.5°	231.4	153.4	96.4	83.7	81.2
60°	210.0	132.9	85.3	74.7	73.4
62.5°	190.8	113.6	75.5	66.9	65.6
65°	170.3	94.4	66.1	59.1	58.3
67.5°	149.3	78.4	57.4	51.7	51.3
70°	128.4	66.1	49.2	44.7	44.3
72.5°	107.9	54.6	41.4	38.6	37.7
75°	87.0	43.5	34.5	32.0	31.6
77.5°	68.1	33.6	27.5	25.8	25.4
80°	50.1	25.0	21.3	20.1	19.7
82.5°	32.8	17.2	15.2	14.4	14.4
85°	17.6	10.7	9.8	9.0	9.4
87.5°	6.2	4.5	4.5	4.1	4.5
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)