

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: P1055610

Luminaire Tested: S123R3DR-S340D840-X4F0-XX-UDD-FLL-W

Issue Date: 7/25/2025

**Test Information**

Test Method: LM-79-2019  
Report Number: P1055610  
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-S340D840-X4F0-XX-UDD-FLL-W  
Description: DEFINE 3, WHITE 3-INCH REGRESSED DIRECT RECESSED HOUSING WITH FROSTED LENS  
CORE LIGHT ENGINE  
Light Source: 4000K CCT, 80 CRI LEDS  
Ballast/Driver: -

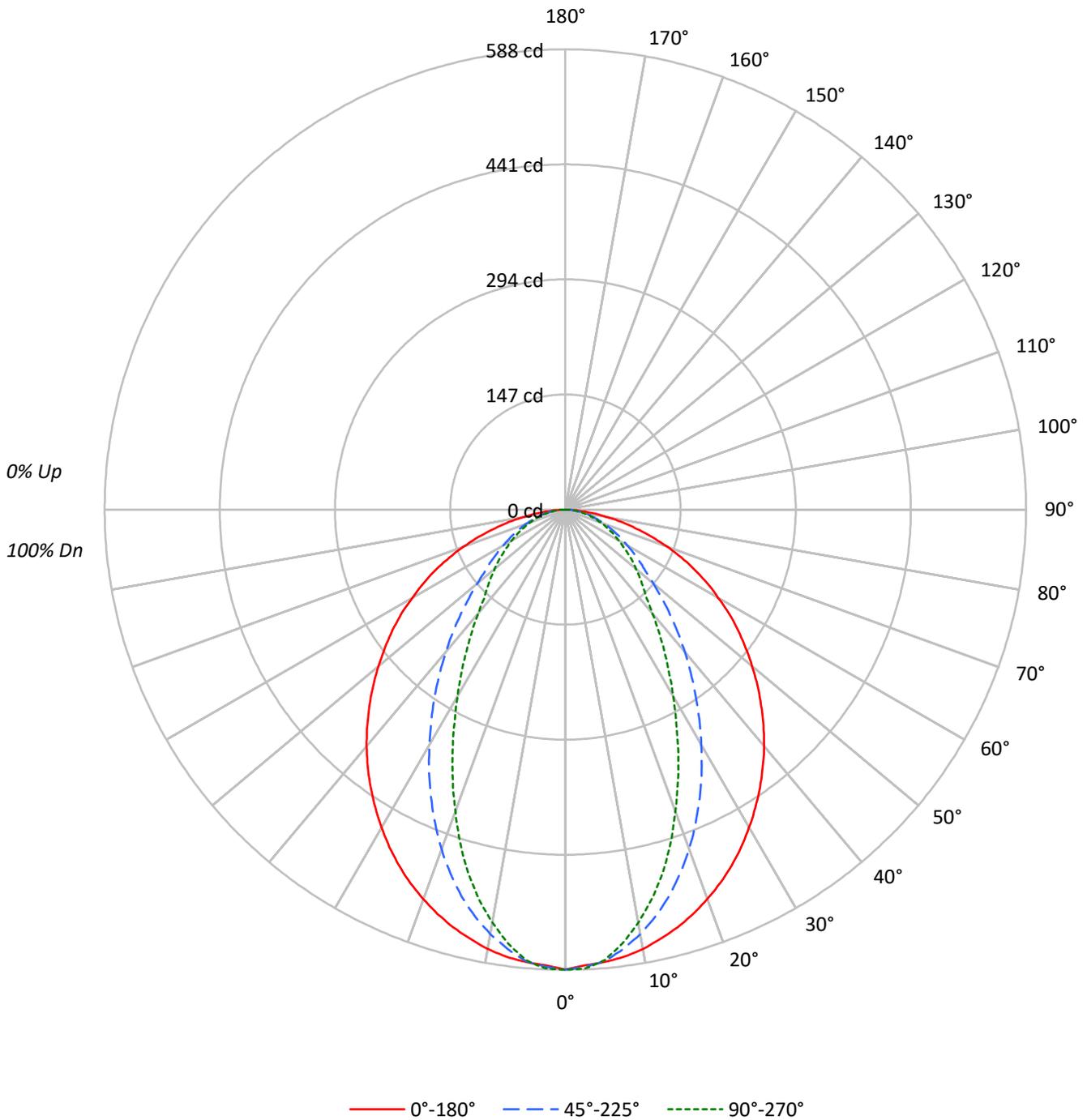
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 1030.7 lumens  
Efficiency: N/A  
Efficacy: 81.8 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

TEST NUMBER: P1055610

CATALOG NUMBER: S123R3DR-S340D840-X4F0-XX-UDD-FLL-W

### Luminous Intensity Polar Plot





TEST NUMBER: P1055610

CATALOG NUMBER: S123R3DR-S340D840-X4F0-XX-UDD-FLL-W

**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°	7086	7086	7086
5°	7022	7006	6990
10°	6979	6743	6559
15°	6896	6386	5991
20°	6796	5928	5267
25°	6678	5397	4532
30°	6529	4828	3831
35°	6373	4270	3235
40°	6212	3728	2718
45°	6026	3216	2399
50°	5837	2737	2202
55°	5663	2438	2033
60°	5428	2204	1898
65°	5203	2020	1780
70°	4850	1858	1674
75°	4341	1719	1574
80°	3721	1590	1465
85°	2614	1452	1397

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 0°  
 Vertical Angle: 45°  
 Luminance: 6026 cd/sqm



TEST NUMBER: P1055610

CATALOG NUMBER: S123R3DR-S340D840-X4F0-XX-UDD-FLL-W

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	54.5	5.3
10°-20°	144.1	14.0
20°-30°	189.9	18.4
30°-40°	192.7	18.7
40°-50°	167.5	16.3
50°-60°	131.2	12.7
60°-70°	89.2	8.7
70°-80°	48.3	4.7
80°-90°	13.3	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°	388.5	37.7
0°-40°	581.2	56.4
0°-60°	879.9	85.4
0°-90°	1030.7	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1030.7	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	588	588	588	588	588	
5°	580	587	579	574	578	55
15°	552	545	512	487	480	156
25°	502	472	406	355	341	231
35°	433	382	290	235	220	271
45°	353	284	189	146	141	273
55°	269	187	116	99	97	241
65°	182	101	71	63	62	180
75°	93	47	37	34	34	99
85°	19	11	10	10	10	24
90°	0	0	0	0	0	



TEST NUMBER: P1055610

CATALOG NUMBER: S123R3DR-S340D840-X4F0-XX-UDD-FLL-W

**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	587.7	587.7	587.7	587.7	587.7
2.5°	582.8	590.3	584.6	585.0	586.8
5°	580.2	587.2	578.9	573.6	577.6
7.5°	576.3	581.5	566.1	557.8	559.1
10°	570.1	571.9	550.8	537.6	535.8
12.5°	561.7	558.7	532.3	513.0	509.9
15°	552.5	544.6	511.6	486.6	480.0
17.5°	542.0	528.8	487.5	456.7	446.6
20°	529.7	511.2	462.0	422.8	410.5
22.5°	516.5	492.7	434.3	388.1	375.4
25°	502.0	471.6	405.7	355.2	340.7
27.5°	486.1	450.5	376.7	322.6	306.4
30°	469.0	428.6	346.8	291.0	275.2
32.5°	451.4	405.3	318.2	261.5	246.1
35°	433.0	381.5	290.1	234.7	219.8
37.5°	414.1	357.4	262.9	209.2	195.2
40°	394.7	332.7	236.9	185.5	172.7
42.5°	374.1	308.1	211.9	163.1	153.4
45°	353.4	283.5	188.6	145.5	140.7
47.5°	332.7	258.5	166.6	133.2	128.8
50°	311.2	234.3	145.9	121.8	117.4
52.5°	290.1	210.5	128.8	110.8	107.7
55°	269.4	187.2	116.0	98.9	96.7
57.5°	247.9	164.4	103.3	89.7	87.0
60°	225.1	142.4	91.4	80.0	78.7
62.5°	204.4	121.8	80.9	71.6	70.3
65°	182.4	101.1	70.8	63.3	62.4
67.5°	160.0	84.0	61.5	55.4	54.9
70°	137.6	70.8	52.7	47.9	47.5
72.5°	115.6	58.5	44.4	41.3	40.4
75°	93.2	46.6	36.9	34.3	33.8
77.5°	73.0	36.0	29.5	27.7	27.3
80°	53.6	26.8	22.9	21.5	21.1
82.5°	35.2	18.5	16.3	15.4	15.4
85°	18.9	11.4	10.5	9.7	10.1
87.5°	6.6	4.8	4.8	4.4	4.8
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)