

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: P1055613

Luminaire Tested: S123R3DR-S340D850-X4F0-XX-UDD-FLL-W

Issue Date: 7/25/2025

Test Information

Test Method: LM-79-2019
Report Number: P1055613
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-S340D850-X4F0-XX-UDD-FLL-W
Description: DEFINE 3, WHITE 3-INCH REGRESSED DIRECT RECESSED HOUSING WITH FROSTED LENS
CORE LIGHT ENGINE
Light Source: 5000K CCT, 80 CRI LEDS
Ballast/Driver: -

Summary

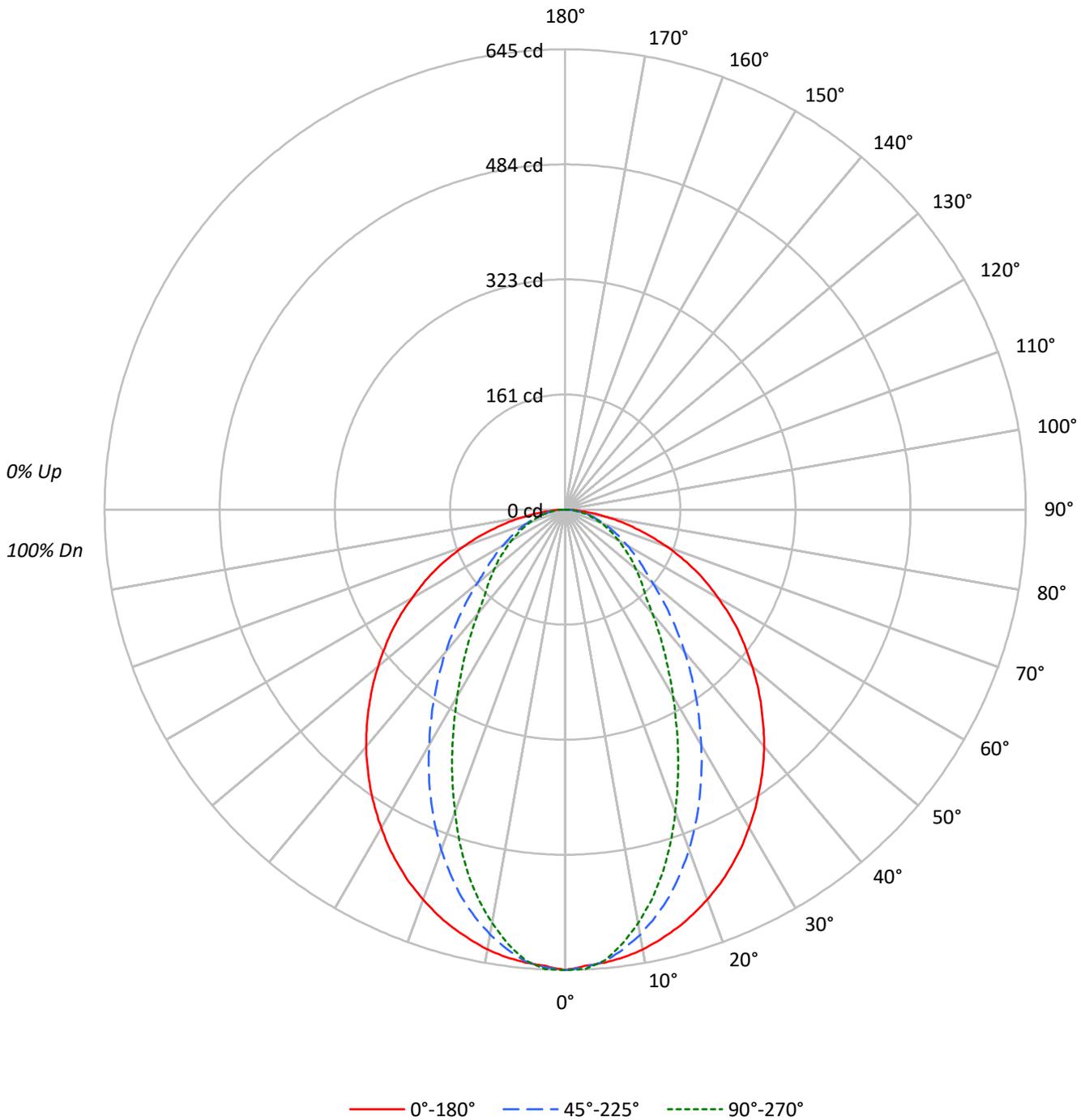
Lumens per Lamp: N/A
Luminaire Lumens: 1131.9 lumens
Efficiency: N/A
Efficacy: 89.8 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 0.83 / 1.02
Luminous Opening: Rectangular (W 0.23' x L: 3.9' x H: 0')
CIE Type: Direct

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

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Luminous Intensity Polar Plot





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COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:

RF	20									20									20									20									
RC	80									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°	7781	7781	7781
5°	7712	7694	7677
10°	7665	7404	7203
15°	7574	7013	6579
20°	7463	6509	5784
25°	7332	5926	4977
30°	7170	5303	4207
35°	6998	4689	3553
40°	6823	4095	2986
45°	6617	3531	2634
50°	6411	3007	2418
55°	6220	2678	2232
60°	5958	2421	2083
65°	5714	2217	1954
70°	5326	2041	1837
75°	4765	1887	1733
80°	4089	1743	1611
85°	2877	1605	1535

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 6617 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	59.8	5.3
10°-20°	158.3	14.0
20°-30°	208.5	18.4
30°-40°	211.6	18.7
40°-50°	183.9	16.3
50°-60°	144.1	12.7
60°-70°	97.9	8.6
70°-80°	53.1	4.7
80°-90°	14.6	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°	426.6	37.7
0°-40°	638.2	56.4
0°-60°	966.3	85.4
0°-90°	1131.9	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1131.9	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	645	645	645	645	645	
5°	637	645	636	630	634	60
15°	607	598	562	534	527	171
25°	551	518	446	390	374	254
35°	476	419	319	258	241	297
45°	388	311	207	160	154	300
55°	296	206	127	109	106	264
65°	200	111	78	70	68	198
75°	102	51	40	38	37	109
85°	21	13	12	11	11	26
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	645.4	645.4	645.4	645.4	645.4
2.5°	640.1	648.3	642.0	642.5	644.4
5°	637.2	644.9	635.7	629.9	634.3
7.5°	632.8	638.6	621.7	612.5	614.0
10°	626.1	628.0	604.8	590.3	588.4
12.5°	616.9	613.5	584.6	563.3	559.9
15°	606.8	598.1	561.9	534.4	527.1
17.5°	595.2	580.7	535.3	501.5	490.4
20°	581.7	561.4	507.3	464.4	450.8
22.5°	567.2	541.1	476.9	426.2	412.2
25°	551.2	517.9	445.5	390.0	374.1
27.5°	533.9	494.8	413.7	354.3	336.4
30°	515.0	470.6	380.9	319.5	302.2
32.5°	495.7	445.1	349.5	287.2	270.3
35°	475.5	419.0	318.6	257.8	241.4
37.5°	454.7	392.4	288.7	229.8	214.3
40°	433.5	365.4	260.2	203.7	189.7
42.5°	410.8	338.4	232.7	179.1	168.5
45°	388.1	311.3	207.1	159.8	154.5
47.5°	365.4	283.8	182.9	146.3	141.4
50°	341.8	257.3	160.3	133.7	128.9
52.5°	318.6	231.2	141.4	121.6	118.3
55°	295.9	205.6	127.4	108.6	106.2
57.5°	272.2	180.5	113.4	98.5	95.6
60°	247.1	156.4	100.4	87.9	86.4
62.5°	224.5	133.7	88.8	78.7	77.2
65°	200.3	111.0	77.7	69.5	68.5
67.5°	175.7	92.2	67.6	60.8	60.3
70°	151.1	77.7	57.9	52.6	52.1
72.5°	127.0	64.2	48.8	45.4	44.4
75°	102.3	51.2	40.5	37.7	37.2
77.5°	80.1	39.6	32.3	30.4	29.9
80°	58.9	29.4	25.1	23.7	23.2
82.5°	38.6	20.3	17.9	16.9	16.9
85°	20.8	12.6	11.6	10.6	11.1
87.5°	7.2	5.3	5.3	4.8	5.3
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)