

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: P1055619

Luminaire Tested: S123R3DR-S340D930-X4F0-XX-UDD-FLL-W

Issue Date: 7/25/2025

**Test Information**

Test Method: LM-79-2019  
Report Number: P1055619  
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-S340D930-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, 90 CRI LEDS  
Ballast/Driver: -

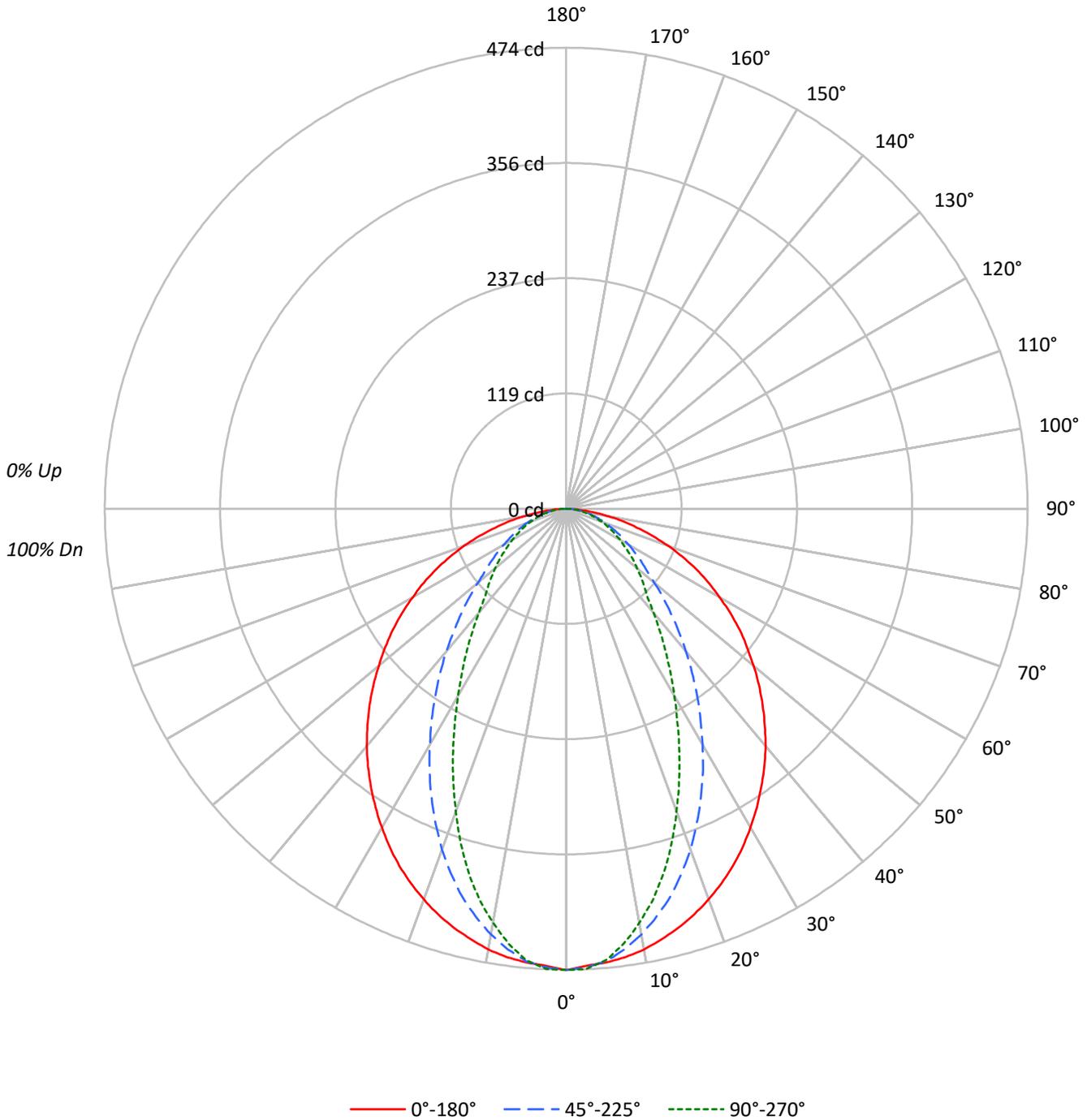
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 832.1 lumens  
Efficiency: N/A  
Efficacy: 66.0 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	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°	5721	5721	5721
5°	5669	5657	5643
10°	5635	5443	5296
15°	5568	5156	4837
20°	5486	4786	4252
25°	5392	4357	3658
30°	5271	3898	3092
35°	5144	3447	2611
40°	5016	3011	2196
45°	4864	2595	1937
50°	4712	2210	1776
55°	4572	1970	1642
60°	4381	1780	1531
65°	4202	1629	1438
70°	3916	1502	1350
75°	3503	1388	1272
80°	3006	1284	1180
85°	2116	1176	1134

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 0°  
 Vertical Angle: 45°  
 Luminance: 4864 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	44.0	5.3
10°-20°	116.4	14.0
20°-30°	153.3	18.4
30°-40°	155.6	18.7
40°-50°	135.2	16.3
50°-60°	106.0	12.7
60°-70°	72.0	8.7
70°-80°	39.0	4.7
80°-90°	10.7	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°	313.6	37.7
0°-40°	469.2	56.4
0°-60°	710.4	85.4
0°-90°	832.1	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	832.1	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	474	474	474	474	474	
5°	468	474	467	463	466	44
15°	446	440	413	393	388	126
25°	405	381	328	287	275	187
35°	350	308	234	190	177	219
45°	285	229	152	118	114	220
55°	218	151	94	80	78	194
65°	147	82	57	51	50	145
75°	75	38	30	28	27	80
85°	15	9	8	8	8	19
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	474.5	474.5	474.5	474.5	474.5
2.5°	470.6	476.6	472.0	472.3	473.7
5°	468.4	474.1	467.4	463.1	466.3
7.5°	465.2	469.5	457.1	450.3	451.4
10°	460.3	461.7	444.6	434.0	432.6
12.5°	453.5	451.0	429.7	414.1	411.6
15°	446.1	439.7	413.1	392.8	387.5
17.5°	437.5	426.9	393.5	368.7	360.5
20°	427.6	412.7	373.0	341.4	331.4
22.5°	417.0	397.8	350.6	313.3	303.1
25°	405.3	380.8	327.5	286.7	275.0
27.5°	392.5	363.7	304.1	260.5	247.3
30°	378.6	346.0	280.0	234.9	222.1
32.5°	364.4	327.2	256.9	211.1	198.7
35°	349.5	308.0	234.2	189.5	177.4
37.5°	334.3	288.5	212.2	168.9	157.6
40°	318.7	268.6	191.3	149.8	139.5
42.5°	302.0	248.8	171.0	131.7	123.8
45°	285.3	228.9	152.2	117.5	113.6
47.5°	268.6	208.7	134.5	107.5	104.0
50°	251.2	189.1	117.8	98.3	94.7
52.5°	234.2	170.0	104.0	89.4	86.9
55°	217.5	151.2	93.7	79.8	78.1
57.5°	200.1	132.7	83.4	72.4	70.3
60°	181.7	115.0	73.8	64.6	63.5
62.5°	165.0	98.3	65.3	57.8	56.8
65°	147.3	81.6	57.1	51.1	50.4
67.5°	129.2	67.8	49.7	44.7	44.4
70°	111.1	57.1	42.6	38.7	38.3
72.5°	93.3	47.2	35.8	33.4	32.6
75°	75.2	37.6	29.8	27.7	27.3
77.5°	58.9	29.1	23.8	22.4	22.0
80°	43.3	21.6	18.5	17.4	17.0
82.5°	28.4	14.9	13.1	12.4	12.4
85°	15.3	9.2	8.5	7.8	8.2
87.5°	5.3	3.9	3.9	3.5	3.9
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)