

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: P1055625

Luminaire Tested: S123R3DR-S340D940-X4F0-XX-UDD-FLL-W

Issue Date: 7/25/2025

**Test Information**

Test Method: LM-79-2019  
Report Number: P1055625  
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-S340D940-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, 90 CRI LEDS  
Ballast/Driver: -

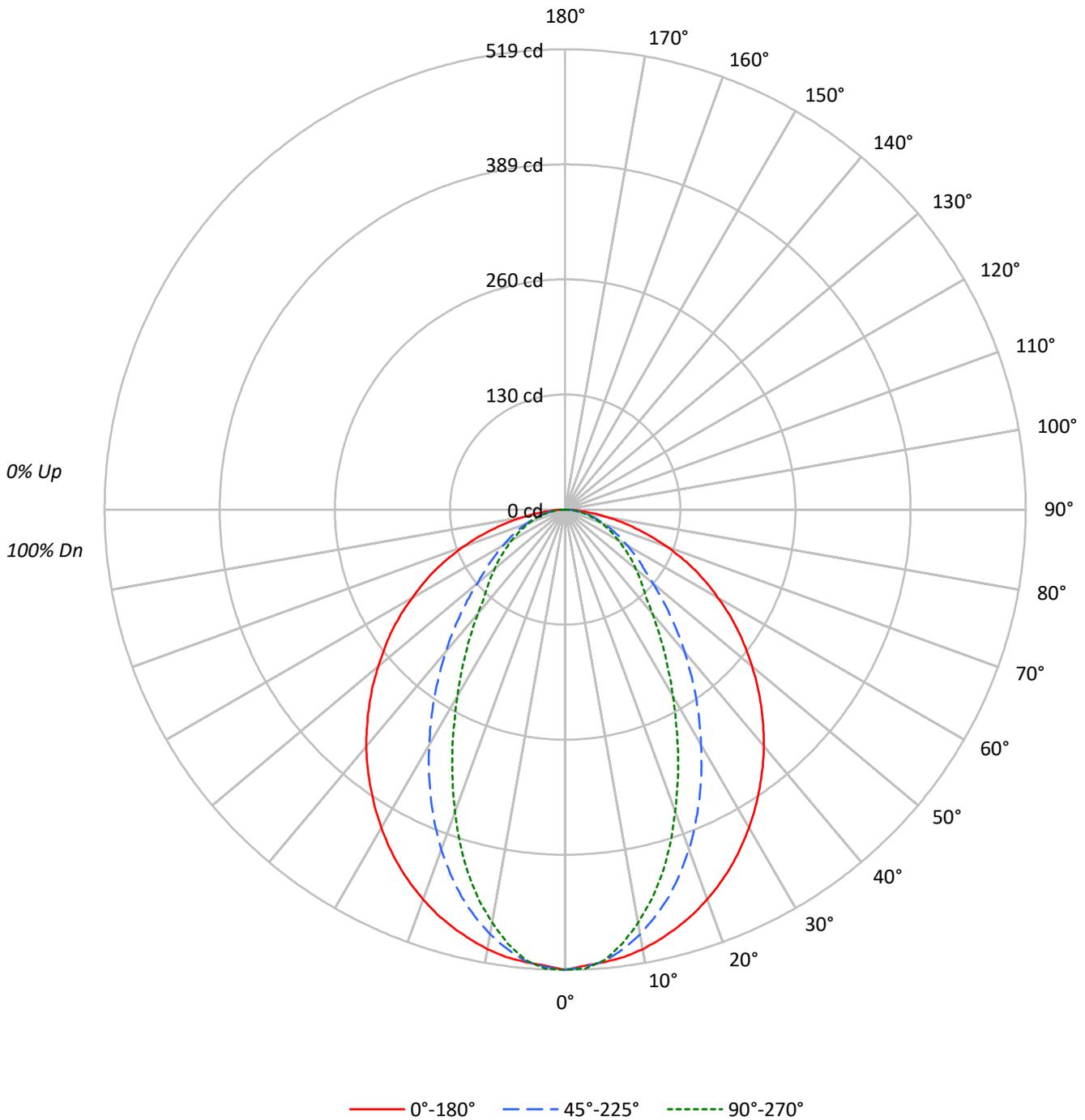
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 910.1 lumens  
Efficiency: N/A  
Efficacy: 72.2 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			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°	6256	6256	6256
5°	6200	6187	6172
10°	6163	5953	5792
15°	6090	5639	5290
20°	6001	5233	4651
25°	5896	4765	4001
30°	5765	4263	3383
35°	5627	3771	2857
40°	5485	3292	2400
45°	5321	2839	2118
50°	5154	2418	1943
55°	5001	2155	1795
60°	4791	1946	1676
65°	4596	1783	1572
70°	4283	1643	1477
75°	3834	1519	1393
80°	3291	1402	1291
85°	2310	1286	1231

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 0°  
 Vertical Angle: 45°  
 Luminance: 5321 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	48.1	5.3
10°-20°	127.3	14.0
20°-30°	167.6	18.4
30°-40°	170.2	18.7
40°-50°	147.9	16.3
50°-60°	115.9	12.7
60°-70°	78.7	8.7
70°-80°	42.7	4.7
80°-90°	11.8	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°	343.0	37.7
0°-40°	513.2	56.4
0°-60°	777.0	85.4
0°-90°	910.1	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	910.1	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	519	519	519	519	519	
5°	512	518	511	506	510	49
15°	488	481	452	430	424	138
25°	443	416	358	314	301	204
35°	382	337	256	207	194	239
45°	312	250	166	128	124	241
55°	238	165	102	87	85	212
65°	161	89	62	56	55	159
75°	82	41	33	30	30	88
85°	17	10	9	8	9	21
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	518.9	518.9	518.9	518.9	518.9
2.5°	514.7	521.3	516.2	516.6	518.1
5°	512.3	518.5	511.2	506.5	510.0
7.5°	508.8	513.5	499.9	492.5	493.7
10°	503.4	504.9	486.3	474.7	473.1
12.5°	496.0	493.3	470.0	452.9	450.2
15°	487.9	480.9	451.8	429.7	423.8
17.5°	478.6	466.9	430.4	403.3	394.3
20°	467.7	451.4	407.9	373.4	362.5
22.5°	456.0	435.1	383.5	342.7	331.5
25°	443.2	416.5	358.2	313.6	300.8
27.5°	429.3	397.8	332.6	284.9	270.5
30°	414.1	378.4	306.2	256.9	243.0
32.5°	398.6	357.9	281.0	230.9	217.3
35°	382.3	336.9	256.2	207.3	194.1
37.5°	365.6	315.5	232.1	184.7	172.3
40°	348.5	293.8	209.2	163.8	152.5
42.5°	330.3	272.1	187.1	144.0	135.5
45°	312.1	250.3	166.5	128.5	124.2
47.5°	293.8	228.2	147.1	117.6	113.7
50°	274.8	206.9	128.9	107.5	103.6
52.5°	256.2	185.9	113.7	97.8	95.1
55°	237.9	165.3	102.5	87.3	85.4
57.5°	218.9	145.2	91.2	79.2	76.8
60°	198.7	125.8	80.7	70.6	69.5
62.5°	180.5	107.5	71.4	63.3	62.1
65°	161.1	89.3	62.5	55.9	55.1
67.5°	141.3	74.1	54.3	48.9	48.5
70°	121.5	62.5	46.6	42.3	41.9
72.5°	102.1	51.6	39.2	36.5	35.7
75°	82.3	41.1	32.6	30.3	29.9
77.5°	64.4	31.8	26.0	24.5	24.1
80°	47.4	23.7	20.2	19.0	18.6
82.5°	31.0	16.3	14.4	13.6	13.6
85°	16.7	10.1	9.3	8.5	8.9
87.5°	5.8	4.3	4.3	3.9	4.3
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)