

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: P1055618

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

Issue Date: 7/25/2025

Test Information

Test Method: LM-79-2019
Report Number: P1055618
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2503-402-6)
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-S
Description: DEFINE 3, SILVER 3-INCH REGRESSED DIRECT RECESSED HOUSING WITH FROSTED LENS
CORE LIGHT ENGINE
Light Source: 3000K CCT, 90 CRI LEDS
Ballast/Driver: -

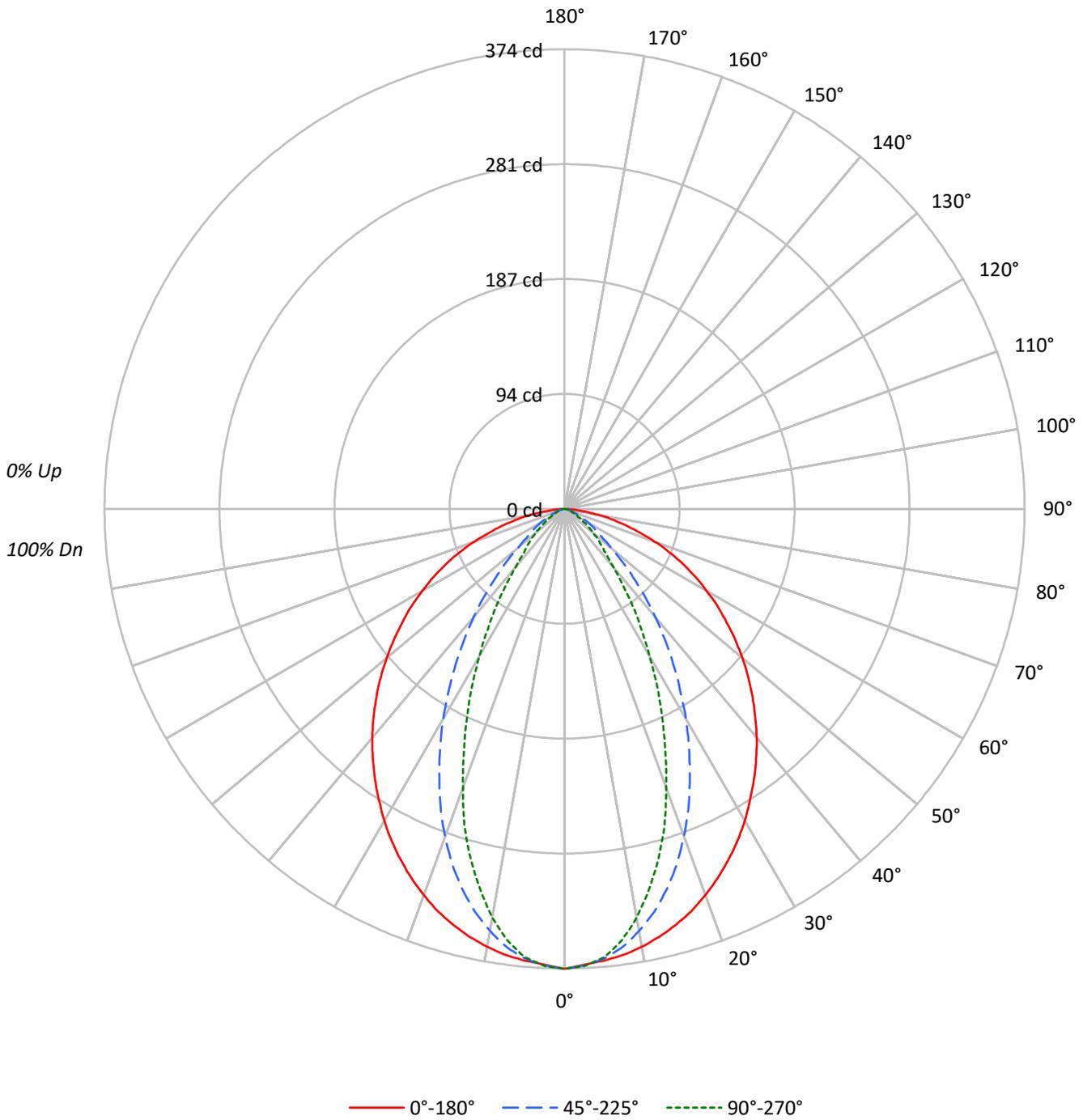
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 520.6 lumens
Efficiency: N/A
Efficacy: 41.3 lumens/watt
Spacing Criteria (0/90/45): 1.17 / 0.77 / 0.94
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									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	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	111	108	104	102	109	106	103	100	101	99	97	98	96	94	94	93	91	89																												
2	104	97	92	87	101	95	90	86	92	88	84	89	85	82	86	83	81	79																												
3	96	88	81	76	94	86	80	76	84	78	74	81	77	73	79	75	72	70																												
4	90	80	73	67	88	79	72	67	76	71	66	74	69	65	72	68	64	62																												
5	84	73	66	60	82	72	65	60	70	64	59	68	63	59	67	62	58	56																												
6	78	67	60	54	77	66	59	54	65	58	53	63	57	53	62	57	53	51																												
7	73	62	54	49	72	61	54	49	60	53	49	58	53	48	57	52	48	46																												
8	69	57	50	45	68	57	50	45	56	49	45	54	49	44	53	48	44	42																												
9	65	53	46	41	64	53	46	41	52	45	41	51	45	41	50	45	41	39																												
10	62	50	43	38	60	49	43	38	48	42	38	48	42	38	47	42	38	36																												

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	4514	4514	4514
5°	4467	4449	4437
10°	4432	4270	4135
15°	4372	4004	3681
20°	4293	3642	3101
25°	4192	3206	2502
30°	4080	2747	1927
35°	3953	2267	1426
40°	3826	1804	971
45°	3685	1349	731
50°	3534	938	572
55°	3380	685	418
60°	3217	514	299
65°	3027	345	234
70°	2739	250	187
75°	2362	182	149
80°	1895	146	125
85°	982	152	97

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 3685 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	34.6	6.6
10°-20°	90.1	17.3
20°-30°	113.2	21.7
30°-40°	105.4	20.2
40°-50°	80.7	15.5
50°-60°	53.6	10.3
60°-70°	28.9	5.6
70°-80°	11.8	2.3
80°-90°	2.3	0.4
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°	237.9	45.7
0°-40°	343.3	65.9
0°-60°	477.6	91.7
0°-90°	520.6	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	520.6	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	374	374	374	374	374	
5°	369	373	368	366	367	35
15°	350	345	321	302	295	99
25°	315	294	241	201	188	145
35°	269	229	154	109	97	168
45°	216	160	79	46	43	167
55°	161	93	33	23	20	144
65°	106	36	12	9	8	105
75°	51	8	4	4	3	54
85°	7	1	1	1	1	10
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	374.4	374.4	374.4	374.4	374.4
2.5°	371.2	375.8	371.9	372.3	372.3
5°	369.1	373.0	367.6	366.2	366.6
7.5°	366.2	368.7	359.8	355.2	354.5
10°	362.0	362.7	348.8	340.7	337.8
12.5°	356.6	354.2	336.1	322.6	317.2
15°	350.3	344.6	320.8	302.0	294.9
17.5°	343.2	333.6	303.4	278.9	270.4
20°	334.6	321.2	283.9	253.4	241.7
22.5°	325.4	308.0	263.3	227.1	214.0
25°	315.1	293.8	241.0	200.9	188.1
27.5°	304.5	278.6	219.0	176.0	162.9
30°	293.1	263.0	197.3	151.9	138.4
32.5°	280.7	245.9	174.9	129.5	116.0
35°	268.6	228.9	154.0	108.9	96.9
37.5°	255.9	211.9	133.8	90.8	77.4
40°	243.1	194.5	114.6	73.1	61.7
42.5°	229.6	177.1	96.5	58.2	49.3
45°	216.1	159.7	79.1	46.5	42.9
47.5°	202.6	142.3	63.9	40.1	36.6
50°	188.4	125.6	50.0	34.1	30.5
52.5°	174.9	108.9	39.0	28.0	24.8
55°	160.8	93.0	32.6	22.7	19.9
57.5°	147.6	76.7	27.0	17.7	15.6
60°	133.4	62.1	21.3	13.8	12.4
62.5°	119.9	48.6	16.3	11.0	9.9
65°	106.1	35.8	12.1	8.9	8.2
67.5°	92.3	25.9	9.2	7.1	6.7
70°	77.7	19.5	7.1	5.7	5.3
72.5°	63.9	13.8	5.3	4.6	4.3
75°	50.7	8.5	3.9	3.5	3.2
77.5°	39.0	5.0	2.8	2.8	2.5
80°	27.3	2.8	2.1	2.1	1.8
82.5°	16.7	1.8	1.4	1.4	1.4
85°	7.1	1.1	1.1	1.1	0.7
87.5°	1.1	0.4	0.4	0.4	0.4
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)