

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: P1055620

Luminaire Tested: S123R3DR-S340D935-X4F0-XX-UDD-FLL-B

Issue Date: 7/25/2025

Test Information

Test Method: LM-79-2019
Report Number: P1055620
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2503-402-5)
Test Lab: INNOVATION CENTER
Issue Date: 7/25/2025
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: NEO-RAY
Catalog Number: S123R3DR-S340D935-X4F0-XX-UDD-FLL-B
Description: DEFINE 3, BLACK 3-INCH REGRESSED DIRECT RECESSED HOUSING WITH FROSTED LENS
CORE LIGHT ENGINE
Light Source: 3500K CCT, 90 CRI LEDS
Ballast/Driver: -

Summary

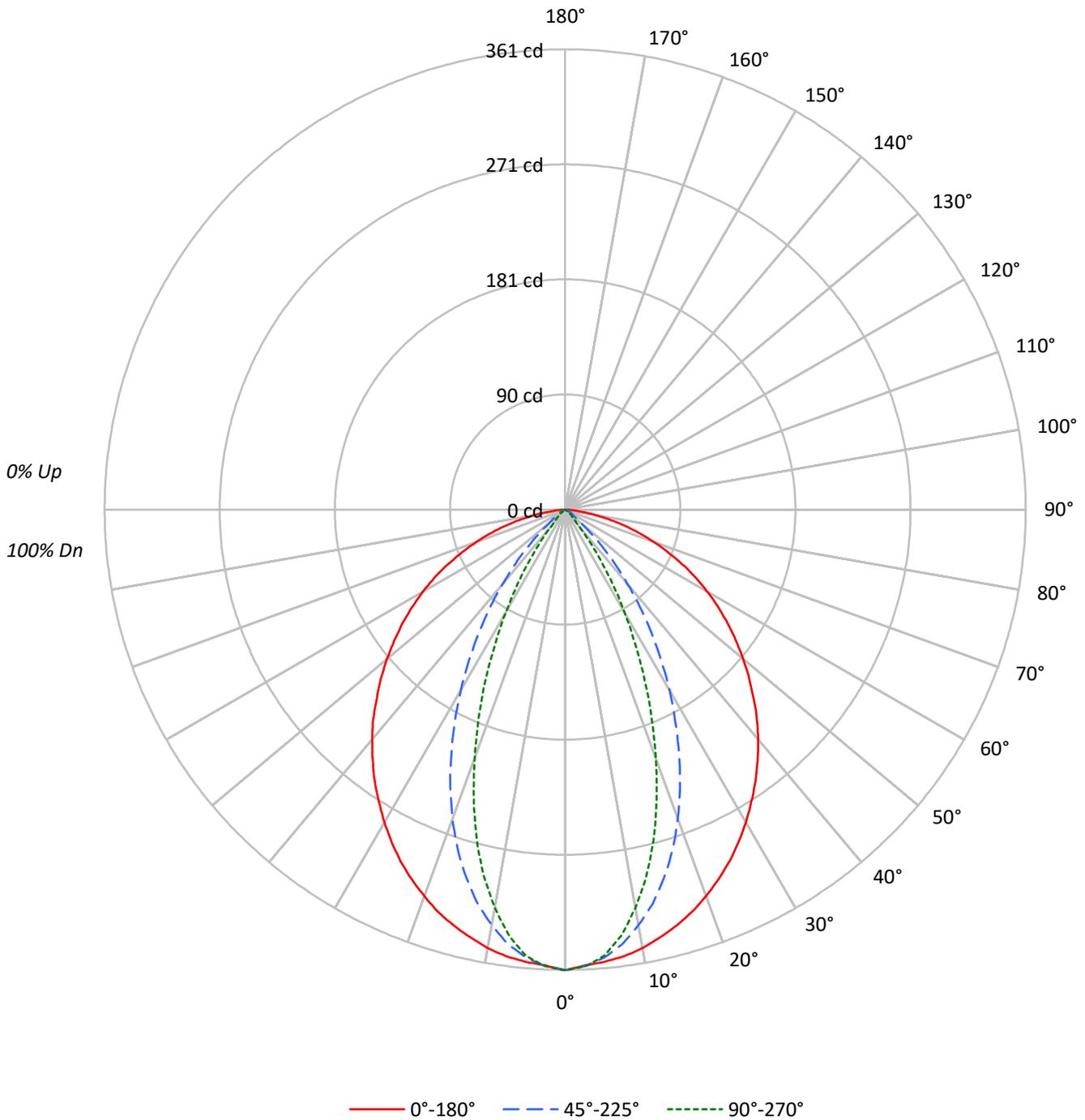
Lumens per Lamp: N/A
Luminaire Lumens: 422.8 lumens
Efficiency: N/A
Efficacy: 33.6 lumens/watt
Spacing Criteria (0/90/45): 1.17 / 0.7 / 0.86
Luminous Opening: Rectangular (W 0.23' x L: 3.9' x H: 0')
CIE Type: Direct

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	112	108	105	103	109	106	104	101	102	100	98	98	97	95	95	93	92	90
2	105	99	94	89	102	97	92	88	93	90	86	90	87	84	87	85	83	81
3	98	90	84	79	96	88	83	78	86	81	77	83	79	76	81	77	74	73
4	92	82	75	70	90	81	75	70	79	73	69	77	72	68	75	71	67	65
5	86	76	69	63	84	75	68	63	73	67	62	71	66	62	69	65	61	59
6	81	70	63	57	79	69	62	57	67	61	57	66	61	56	64	60	56	54
7	76	65	58	53	74	64	57	52	63	57	52	61	56	52	60	55	52	50
8	71	60	53	48	70	60	53	48	58	52	48	57	52	48	56	51	48	46
9	68	56	49	45	66	56	49	45	55	49	45	54	48	44	53	48	44	43
10	64	53	46	42	63	52	46	42	51	46	41	51	45	41	50	45	41	40

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	4356	4356	4356
5°	4308	4267	4254
10°	4276	4051	3881
15°	4215	3733	3345
20°	4140	3313	2664
25°	4053	2807	1965
30°	3944	2275	1289
35°	3828	1732	706
40°	3703	1198	242
45°	3558	696	140
50°	3416	274	84
55°	3269	172	40
60°	3098	109	17
65°	2887	54	11
70°	2591	25	14
75°	2199	19	19
80°	1639	28	0
85°	622	0	0

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 3558 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	33.1	7.8
10°-20°	84.1	19.9
20°-30°	100.3	23.7
30°-40°	85.0	20.1
40°-50°	57.8	13.7
50°-60°	35.8	8.5
60°-70°	18.1	4.3
70°-80°	7.4	1.8
80°-90°	1.1	0.3
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°	217.4	51.4
0°-40°	302.5	71.5
0°-60°	396.1	93.7
0°-90°	422.8	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	422.8	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	361	361	361	361	361	
5°	356	359	353	350	352	34
15°	338	329	299	275	268	95
25°	305	276	211	163	148	140
35°	260	209	118	63	48	163
45°	209	137	41	10	8	161
55°	156	69	8	3	2	139
65°	101	17	2	0	0	100
75°	47	3	0	0	0	50
85°	4	0	0	0	0	8
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	361.3	361.3	361.3	361.3	361.3
2.5°	357.9	362.8	358.6	358.3	358.6
5°	356.0	359.4	352.6	350.0	351.5
7.5°	353.4	354.9	343.7	336.9	336.9
10°	349.3	348.1	330.9	319.7	317.0
12.5°	343.7	339.2	316.7	299.1	294.2
15°	337.7	329.0	299.1	275.4	268.0
17.5°	330.9	317.8	279.9	249.2	238.3
20°	322.7	305.1	258.2	220.7	207.6
22.5°	314.0	291.2	235.3	191.5	176.9
25°	304.7	276.2	211.0	163.0	147.7
27.5°	294.2	260.5	187.0	135.7	118.8
30°	283.3	244.0	163.4	109.4	92.6
32.5°	271.7	226.7	139.8	85.4	69.7
35°	260.1	208.7	117.7	63.3	48.0
37.5°	247.7	190.8	96.3	43.8	30.4
40°	235.3	173.1	76.1	27.7	15.4
42.5°	222.6	154.8	57.7	13.9	10.5
45°	208.7	136.8	40.8	10.1	8.2
47.5°	195.6	119.5	27.0	8.2	6.4
50°	182.1	102.3	14.6	6.0	4.5
52.5°	168.6	85.8	10.5	4.5	3.0
55°	155.5	69.0	8.2	3.0	1.9
57.5°	142.0	54.3	6.4	1.9	1.1
60°	128.5	40.1	4.5	1.1	0.7
62.5°	115.1	27.7	3.0	0.7	0.4
65°	101.2	16.9	1.9	0.4	0.4
67.5°	86.9	11.6	1.1	0.4	0.4
70°	73.5	8.2	0.7	0.4	0.4
72.5°	60.0	5.2	0.4	0.4	0.0
75°	47.2	3.0	0.4	0.4	0.4
77.5°	34.9	1.1	0.4	0.4	0.0
80°	23.6	0.4	0.4	0.4	0.0
82.5°	13.1	0.0	0.4	0.4	0.0
85°	4.5	0.0	0.0	0.4	0.0
87.5°	0.0	0.0	0.0	0.4	0.0
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)