

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: P1055623

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

Issue Date: 7/25/2025

Test Information

Test Method: LM-79-2019
Report Number: P1055623
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-S340D940-X4F0-XX-UDD-FLL-B
Description: DEFINE 3, BLACK 3-INCH REGRESSED DIRECT RECESSED HOUSING WITH FROSTED LENS
CORE LIGHT ENGINE
Light Source: 4000K CCT, 90 CRI LEDS
Ballast/Driver: -

Summary

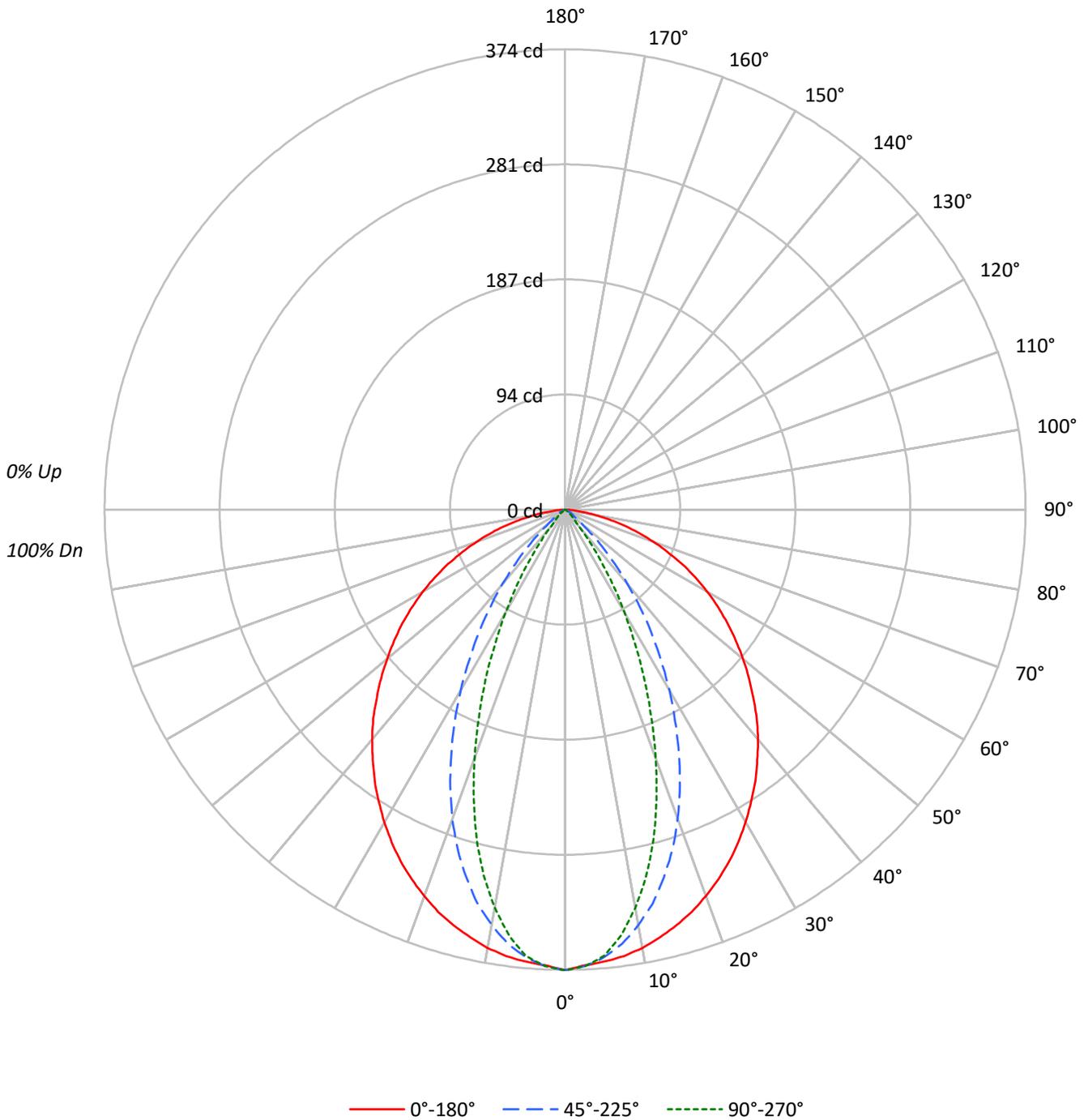
Lumens per Lamp: N/A
Luminaire Lumens: 437.9 lumens
Efficiency: N/A
Efficacy: 34.8 lumens/watt
Spacing Criteria (0/90/45): 1.17 / 0.7 / 0.86
Luminous Opening: Rectangular (W 0.23' x L: 3.9' x H: 0')
CIE Type: Direct

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	60	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°	4512	4512	4512
5°	4462	4420	4407
10°	4428	4195	4020
15°	4365	3866	3464
20°	4288	3431	2758
25°	4197	2907	2034
30°	4085	2356	1335
35°	3965	1794	731
40°	3835	1240	250
45°	3686	721	145
50°	3537	283	88
55°	3386	179	40
60°	3209	113	19
65°	2990	54	11
70°	2683	28	14
75°	2278	19	19
80°	1701	28	0
85°	650	0	0

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 3686 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	34.3	7.8
10°-20°	87.1	19.9
20°-30°	103.8	23.7
30°-40°	88.1	20.1
40°-50°	59.9	13.7
50°-60°	37.1	8.5
60°-70°	18.8	4.3
70°-80°	7.7	1.8
80°-90°	1.2	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°	225.2	51.4
0°-40°	313.3	71.5
0°-60°	410.3	93.7
0°-90°	437.9	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	437.9	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	374	374	374	374	374	
5°	369	372	365	362	364	35
15°	350	341	310	285	278	99
25°	316	286	218	169	153	145
35°	269	216	122	66	50	168
45°	216	142	42	10	8	167
55°	161	71	8	3	2	144
65°	105	18	2	0	0	104
75°	49	3	0	0	0	52
85°	5	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°	374.2	374.2	374.2	374.2	374.2
2.5°	370.7	375.7	371.4	371.0	371.4
5°	368.7	372.2	365.2	362.5	364.1
7.5°	366.0	367.6	355.9	348.9	348.9
10°	361.7	360.6	342.7	331.1	328.4
12.5°	355.9	351.3	328.0	309.7	304.7
15°	349.7	340.8	309.7	285.3	277.5
17.5°	342.7	329.1	289.9	258.1	246.8
20°	334.2	315.9	267.4	228.6	215.0
22.5°	325.2	301.6	243.7	198.3	183.2
25°	315.5	286.0	218.5	168.8	152.9
27.5°	304.7	269.7	193.7	140.5	123.0
30°	293.4	252.7	169.2	113.3	95.9
32.5°	281.4	234.8	144.8	88.5	72.2
35°	269.4	216.2	121.9	65.6	49.7
37.5°	256.5	197.6	99.7	45.4	31.4
40°	243.7	179.3	78.8	28.7	15.9
42.5°	230.5	160.3	59.8	14.4	10.9
45°	216.2	141.7	42.3	10.5	8.5
47.5°	202.6	123.8	27.9	8.5	6.6
50°	188.6	106.0	15.1	6.2	4.7
52.5°	174.7	88.9	10.9	4.7	3.1
55°	161.1	71.4	8.5	3.1	1.9
57.5°	147.1	56.3	6.6	1.9	1.2
60°	133.1	41.5	4.7	1.2	0.8
62.5°	119.2	28.7	3.1	0.8	0.4
65°	104.8	17.5	1.9	0.4	0.4
67.5°	90.0	12.0	1.2	0.4	0.4
70°	76.1	8.5	0.8	0.4	0.4
72.5°	62.1	5.4	0.4	0.4	0.0
75°	48.9	3.1	0.4	0.4	0.4
77.5°	36.1	1.2	0.4	0.4	0.0
80°	24.5	0.4	0.4	0.4	0.0
82.5°	13.6	0.0	0.4	0.4	0.0
85°	4.7	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)