

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: P1055602

Luminaire Tested: S123R3DR-S340D830-X4F0-XX-UDD-FLL-B

Issue Date: 7/25/2025

Test Information

Test Method: LM-79-2019
Report Number: P1055602
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-S340D830-X4F0-XX-UDD-FLL-B
Description: DEFINE 3, BLACK 3-INCH REGRESSED DIRECT RECESSED HOUSING WITH FROSTED LENS
CORE LIGHT ENGINE
Light Source: 3000K CCT, 80 CRI LEDS
Ballast/Driver: -

Summary

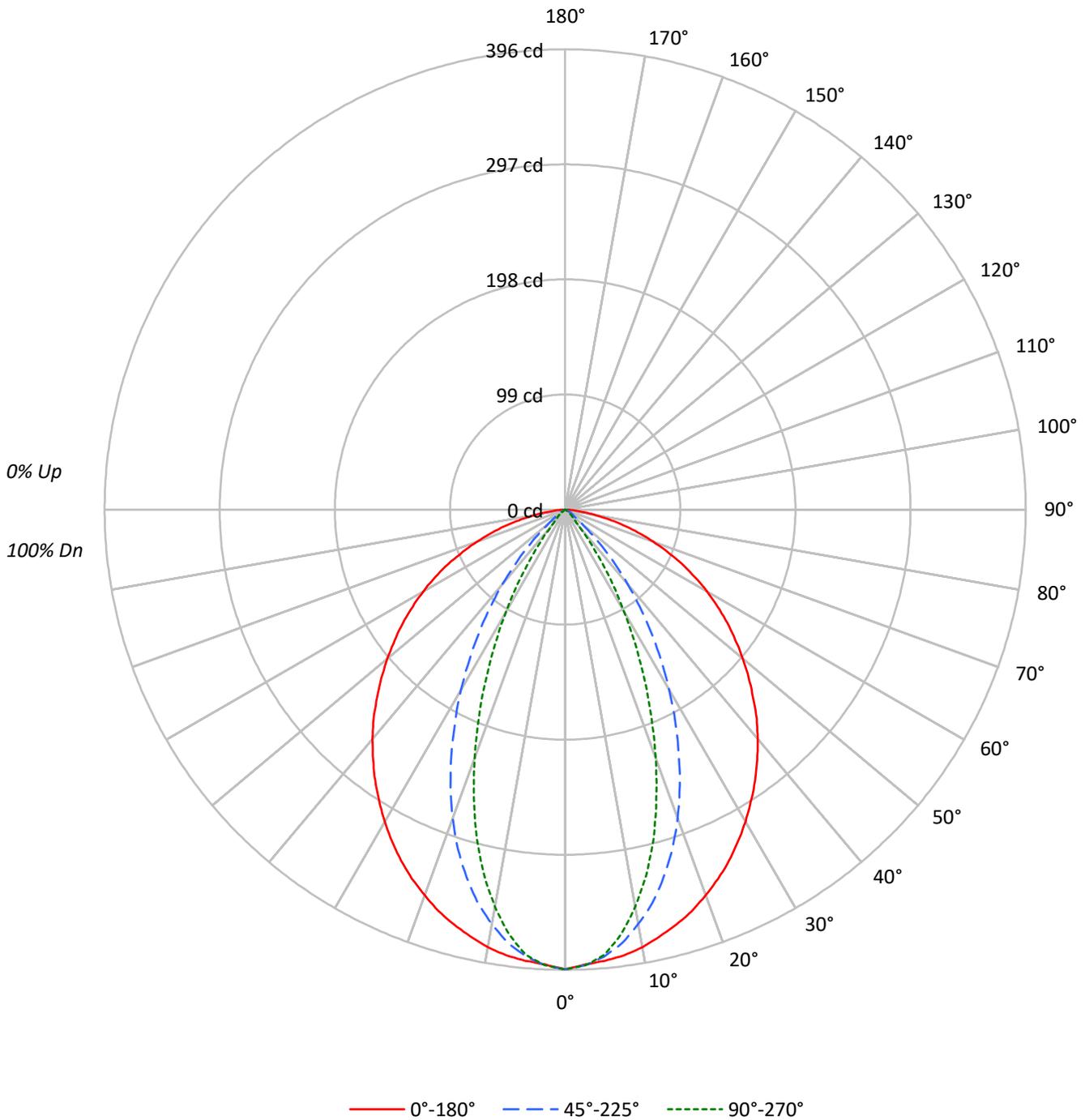
Lumens per Lamp: N/A
Luminaire Lumens: 462.8 lumens
Efficiency: N/A
Efficacy: 36.7 lumens/watt
Spacing Criteria (0/90/45): 1.17 / 0.7 / 0.86
Luminous Opening: Rectangular (W 0.23' x L: 3.9' x H: 0')
CIE Type: Direct

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	58	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°	4768	4768	4768
5°	4716	4672	4657
10°	4681	4434	4249
15°	4613	4087	3661
20°	4532	3627	2916
25°	4436	3073	2150
30°	4317	2491	1410
35°	4190	1896	773
40°	4054	1311	264
45°	3896	762	153
50°	3740	300	92
55°	3580	189	44
60°	3393	118	19
65°	3161	60	11
70°	2834	28	14
75°	2408	19	19
80°	1791	28	0
85°	678	0	0

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 3896 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	36.3	7.8
10°-20°	92.0	19.9
20°-30°	109.8	23.7
30°-40°	93.1	20.1
40°-50°	63.3	13.7
50°-60°	39.2	8.5
60°-70°	19.9	4.3
70°-80°	8.1	1.7
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°	238.0	51.4
0°-40°	331.1	71.5
0°-60°	433.6	93.7
0°-90°	462.8	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	462.8	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	396	396	396	396	396	
5°	390	393	386	383	385	37
15°	370	360	327	302	293	104
25°	334	302	231	178	162	153
35°	285	228	129	69	52	178
45°	228	150	45	11	9	176
55°	170	76	9	3	2	152
65°	111	18	2	0	0	109
75°	52	3	0	0	0	55
85°	5	0	0	0	0	9
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	395.5	395.5	395.5	395.5	395.5
2.5°	391.8	397.1	392.6	392.2	392.6
5°	389.7	393.4	386.0	383.2	384.8
7.5°	386.9	388.5	376.2	368.8	368.8
10°	382.4	381.1	362.2	349.9	347.1
12.5°	376.2	371.3	346.7	327.4	322.0
15°	369.6	360.2	327.4	301.5	293.3
17.5°	362.2	347.9	306.5	272.8	260.9
20°	353.2	333.9	282.7	241.6	227.3
22.5°	343.8	318.8	257.6	209.6	193.6
25°	333.5	302.4	231.0	178.5	161.6
27.5°	322.0	285.1	204.7	148.5	130.0
30°	310.1	267.1	178.9	119.8	101.3
32.5°	297.4	248.2	153.0	93.5	76.3
35°	284.7	228.5	128.8	69.3	52.5
37.5°	271.2	208.8	105.4	48.0	33.2
40°	257.6	189.5	83.3	30.4	16.8
42.5°	243.7	169.4	63.2	15.2	11.5
45°	228.5	149.7	44.7	11.1	9.0
47.5°	214.1	130.9	29.5	9.0	7.0
50°	199.4	112.0	16.0	6.6	4.9
52.5°	184.6	93.9	11.5	4.9	3.3
55°	170.3	75.5	9.0	3.3	2.1
57.5°	155.5	59.5	7.0	2.1	1.2
60°	140.7	43.9	4.9	1.2	0.8
62.5°	125.9	30.4	3.3	0.8	0.4
65°	110.8	18.5	2.1	0.4	0.4
67.5°	95.2	12.7	1.2	0.4	0.4
70°	80.4	9.0	0.8	0.4	0.4
72.5°	65.6	5.7	0.4	0.4	0.0
75°	51.7	3.3	0.4	0.4	0.4
77.5°	38.2	1.2	0.4	0.4	0.0
80°	25.8	0.4	0.4	0.4	0.0
82.5°	14.4	0.0	0.4	0.4	0.0
85°	4.9	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)