

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: P1037290

Luminaire Tested: S123DS-B340DB27-4F0-XX-W2A-D

Issue Date: 5/2/2025

Test Information

Test Method: LM-79-2019
Report Number: P1037290
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1802-639-15)
Test Lab: INNOVATION CENTER
Issue Date: 5/2/2025
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: NEO-RAY
Catalog Number: S123DS-B340DB27-4F0-XX-W2A-D
Description: Define 3 Direct Surface with 2700K BioUP LEDs {m-DER=0.473} {m-EER=0.52}
Light Source: -
Ballast/Driver: -

Summary

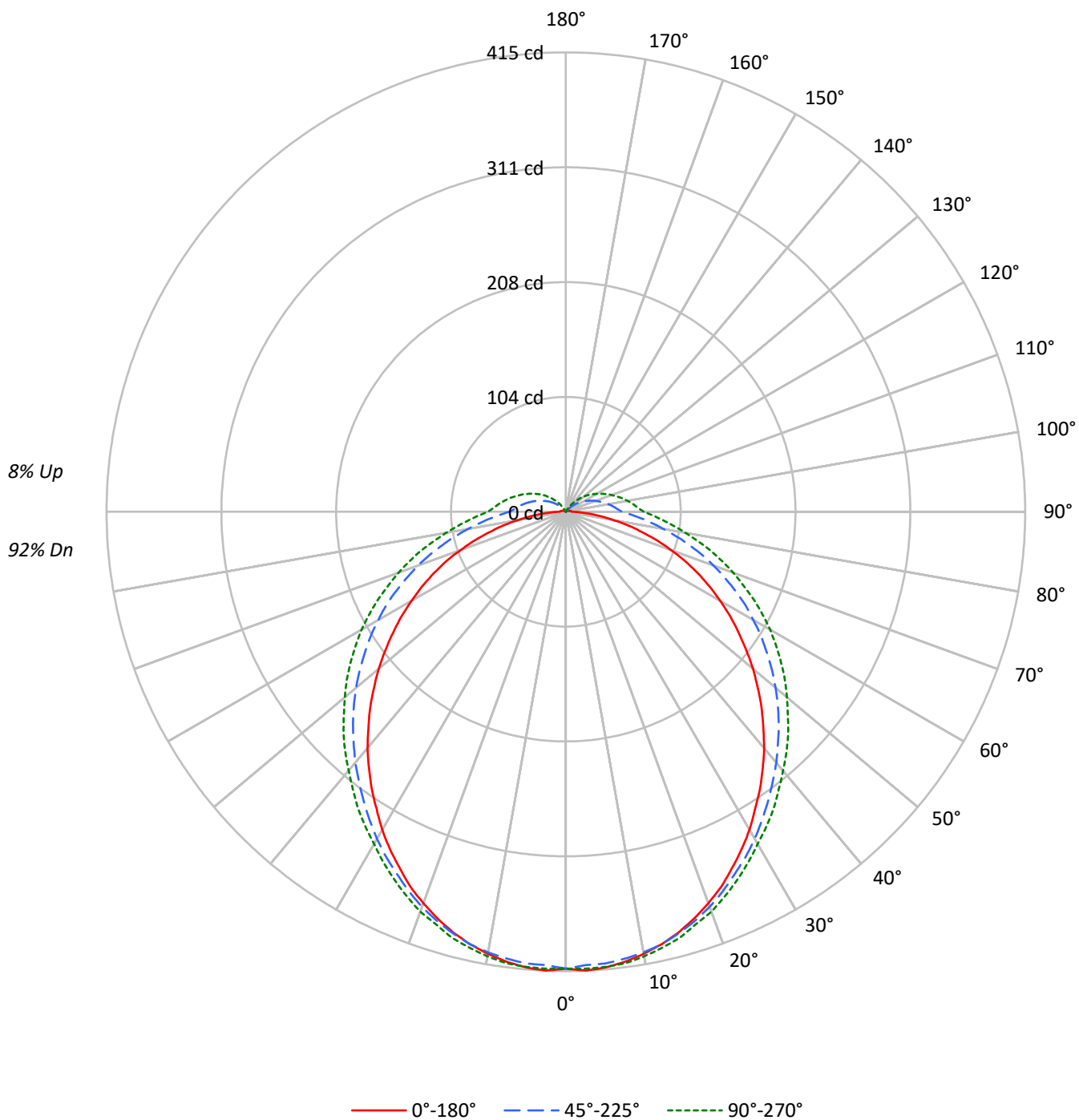
Lumens per Lamp: N/A
Luminaire Lumens: 1386.9 lumens
Efficiency: N/A
Efficacy: 106.7 lumens/watt
Spacing Criteria (0/90/45): 1.2 / 1.25 / 1.37
Luminous Opening: Rectangular (W 0.25' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 13
Input Voltage (V):
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

TEST NUMBER: P1037290

CATALOG NUMBER: S123DS-B340DB27-4F0-XX-W2A-D

Luminous Intensity Polar Plot



TEST NUMBER: P1037290

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COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:

RF	20				20				20				20				20
RC	80				70				50				30				10
RW	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10
RCR																	
0	117	117	117	117	113	113	113	113	106	106	106	100	100	100	94	94	94
1	105	100	95	90	102	97	92	88	91	87	84	85	82	80	80	78	76
2	95	86	79	72	92	83	77	71	79	73	68	74	69	65	70	66	63
3	86	75	67	60	83	73	65	59	69	62	56	65	59	54	61	56	52
4	79	66	57	50	76	64	56	49	61	54	48	57	51	46	54	49	45
5	72	59	50	43	70	58	49	42	54	47	41	52	45	40	49	43	39
6	67	53	44	37	64	52	43	37	49	42	36	47	40	35	44	38	34
7	62	48	39	33	60	47	38	32	45	37	32	42	36	31	40	35	30
8	58	44	35	29	56	43	35	29	41	33	28	39	32	28	37	31	27
9	54	40	32	26	52	39	31	26	37	30	25	36	29	25	34	28	24
10	50	37	29	24	49	36	29	24	35	28	23	33	27	23	32	26	22

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	4442	4442	4442
5°	4465	4426	4459
10°	4432	4418	4457
15°	4384	4394	4439
20°	4310	4352	4403
25°	4219	4287	4356
30°	4124	4241	4308
35°	4017	4188	4301
40°	3916	4156	4290
45°	3806	4141	4325
50°	3696	4141	4366
55°	3577	4159	4455
60°	3464	4211	4588
65°	3354	4304	4763
70°	3185	4472	5064
75°	2974	4787	5627
80°	2758	5573	6800
85°	2717	8435	10881

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°

Vertical Angle: 87.5°

Luminance: 19421 cd/sqm

TEST NUMBER: P1037290

CATALOG NUMBER: S123DS-B340DB27-4F0-XX-W2A-D

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	39.2	2.8
10°-20°	111.6	8.0
20°-30°	166.9	12.0
30°-40°	199.3	14.4
40°-50°	208.5	15.0
50°-60°	195.6	14.1
60°-70°	163.4	11.8
70°-80°	116.9	8.4
80°-90°	69.5	5.0
90°-100°	43.7	3.1
100°-110°	32.1	2.3
110°-120°	21.4	1.5
120°-130°	12.2	0.9
130°-140°	5.5	0.4
140°-150°	1.1	0.1
150°-160°	0.0	0.0
160°-170°	0.0	0.0
170°-180°	0.0	0.0
0°-30°	317.7	22.9
0°-40°	516.9	37.3
0°-60°	921.1	66.4
0°-90°	1270.9	91.6
90°-120°	97.2	7.0
90°-150°	116.1	8.4
90°-180°	116.0	8.4
0°-180°	1386.9	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	413	413	413	413	413	
5°	413	412	410	413	413	39
15°	393	395	394	399	398	111
25°	355	360	361	367	367	164
35°	306	313	319	326	327	191
45°	250	261	272	280	284	193
55°	191	206	222	234	237	171
65°	132	149	169	182	187	130
75°	72	93	115	130	135	76
85°	22	44	68	84	88	23
90°	6	28	51	66	71	4
95°	5	22	44	58	63	4
105°	4	14	34	46	50	4
115°	2	8	24	35	38	2
125°	1	1	14	24	27	1
135°	1	0	5	14	16	1
145°	0	0	0	4	5	0
155°	0	0	0	0	0	0
165°	0	0	0	0	0	0
175°	0	0	0	0	0	0
180°	0	0	0	0	0	0

TEST NUMBER: P1037290

CATALOG NUMBER: S123DS-B340DB27-4F0-XX-W2A-D

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	412.7	412.7	412.7	412.7	412.7
2.5°	414.9	413.6	410.0	413.6	413.2
5°	413.2	412.3	409.6	413.2	412.7
7.5°	410.0	410.0	407.3	411.8	411.4
10°	405.5	406.4	404.2	408.7	407.8
12.5°	400.1	401.5	400.1	404.2	403.3
15°	393.4	394.7	394.3	398.8	398.3
17.5°	385.3	388.0	387.5	391.6	390.7
20°	376.3	379.0	379.9	383.9	384.4
22.5°	366.8	369.5	370.9	376.3	375.8
25°	355.2	359.7	361.0	366.8	366.8
27.5°	343.9	348.9	351.6	356.5	357.0
30°	331.8	337.6	341.2	346.6	346.6
32.5°	318.3	325.0	330.0	335.8	337.2
35°	305.7	312.9	318.7	325.5	327.3
37.5°	292.2	300.3	307.1	314.7	316.0
40°	278.7	286.8	295.8	303.5	305.3
42.5°	263.9	274.2	283.7	292.2	294.9
45°	250.0	260.7	272.0	280.5	284.1
47.5°	235.1	247.3	259.8	269.3	272.0
50°	220.7	233.3	247.3	257.6	260.7
52.5°	205.5	218.9	234.7	245.5	249.5
55°	190.6	205.5	221.6	233.8	237.4
57.5°	176.2	191.5	209.0	221.2	225.2
60°	160.9	177.1	195.6	208.1	213.1
62.5°	146.6	163.2	183.0	195.6	200.1
65°	131.7	149.3	169.0	182.5	187.0
67.5°	116.9	135.3	155.1	169.9	173.5
70°	101.2	120.5	142.1	156.4	160.9
72.5°	86.8	106.1	128.6	143.4	147.9
75°	71.5	92.6	115.1	129.9	135.3
77.5°	58.4	79.6	102.1	117.8	121.8
80°	44.5	66.5	89.9	105.2	109.7
82.5°	32.4	54.8	78.7	94.0	98.5
85°	22.0	44.5	68.3	83.6	88.1
87.5°	13.5	36.0	58.9	74.2	78.7
90°	5.8	27.9	50.8	66.1	70.6
92.5°	5.4	24.7	47.2	62.0	66.1
95°	4.9	22.5	44.5	58.4	62.9
97.5°	4.5	20.7	41.8	55.3	59.8
100°	4.0	18.4	39.1	52.1	56.6
102.5°	3.6	16.2	36.4	49.0	53.5
105°	3.6	14.4	33.7	46.3	50.4
107.5°	3.1	12.6	31.0	43.2	47.2
110°	2.7	10.8	28.8	40.5	44.1



TEST NUMBER: P1037290

CATALOG NUMBER: S123DS-B340DB27-4F0-XX-W2A-D

CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	2.7	9.0	26.1	37.3	41.4
115°	2.2	7.6	23.8	34.6	38.2
117.5°	2.2	5.8	21.1	31.9	35.5
120°	1.8	4.0	18.9	29.2	32.4
122.5°	1.8	2.7	16.6	26.5	29.7
125°	1.3	1.3	14.4	23.8	27.0
127.5°	1.3	0.9	12.1	21.1	24.3
130°	1.3	0.9	9.9	18.4	21.1
132.5°	0.9	0.9	7.6	15.7	18.9
135°	0.9	0.4	5.4	13.5	15.7
137.5°	0.9	0.4	3.6	10.8	13.0
140°	0.4	0.4	1.8	8.5	10.8
142.5°	0.4	0.0	0.0	5.8	8.1
145°	0.4	0.0	0.0	3.6	5.4
147.5°	0.0	0.0	0.0	1.3	3.1
150°	0.0	0.0	0.0	0.0	0.9
152.5°	0.0	0.0	0.0	0.0	0.0
155°	0.0	0.0	0.0	0.0	0.0
157.5°	0.0	0.0	0.0	0.0	0.0
160°	0.0	0.0	0.0	0.0	0.0
162.5°	0.0	0.0	0.0	0.0	0.0
165°	0.0	0.0	0.0	0.0	0.0
167.5°	0.0	0.0	0.0	0.0	0.0
170°	0.0	0.0	0.0	0.0	0.0
172.5°	0.0	0.0	0.0	0.0	0.0
175°	0.0	0.0	0.0	0.0	0.0
177.5°	0.0	0.0	0.0	0.0	0.0
180°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)