

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: P1037314

Luminaire Tested: S123DS-B340DB40-4F0-XX-W2A-D

Issue Date: 5/2/2025

Test Information

Test Method: LM-79-2019
Report Number: P1037314
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-B340DB40-4F0-XX-W2A-D
Description: Define 3 Direct Surface with 4000K BioUP LEDs {m-DER=0.865} {m-EER=0.951}
Light Source: -
Ballast/Driver: -

Summary

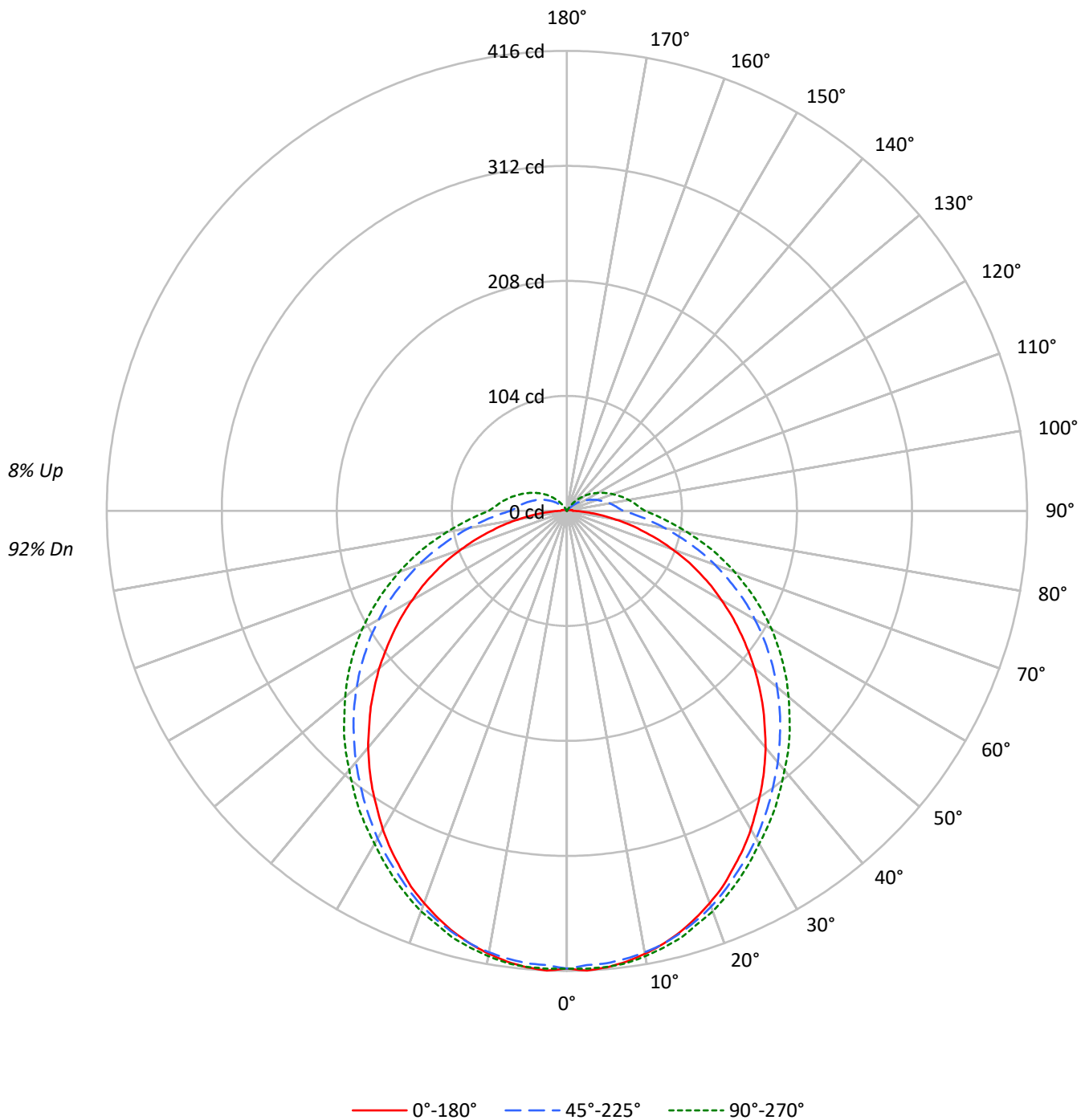
Lumens per Lamp: N/A
Luminaire Lumens: 1391.0 lumens
Efficiency: N/A
Efficacy: 107.0 lumens/watt
Spacing Criteria (0/90/45): 1.2 / 1.25 / 1.37
Luminous Opening: Rectangular (W 0.25' x L: 4' x H: 0')
CIE Type: Direct

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

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

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	4455	4455	4455
5°	4477	4438	4472
10°	4445	4430	4469
15°	4396	4406	4452
20°	4323	4364	4416
25°	4230	4299	4369
30°	4135	4253	4320
35°	4029	4201	4313
40°	3927	4169	4301
45°	3816	4153	4337
50°	3707	4153	4379
55°	3588	4172	4468
60°	3475	4222	4600
65°	3365	4317	4778
70°	3191	4485	5080
75°	2982	4799	5644
80°	2765	5591	6819
85°	2729	8460	10918

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°

Vertical Angle: 87.5°

Luminance: 19470 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	39.3	2.8
10°-20°	111.9	8.0
20°-30°	167.4	12.0
30°-40°	199.8	14.4
40°-50°	209.1	15.0
50°-60°	196.2	14.1
60°-70°	163.9	11.8
70°-80°	117.2	8.4
80°-90°	69.7	5.0
90°-100°	43.8	3.1
100°-110°	32.2	2.3
110°-120°	21.5	1.5
120°-130°	12.3	0.9
130°-140°	5.5	0.4
140°-150°	1.2	0.1
150°-160°	0.0	0.0
160°-170°	0.0	0.0
170°-180°	0.0	0.0
0°-30°	318.6	22.9
0°-40°	518.4	37.3
0°-60°	923.7	66.4
0°-90°	1274.5	91.6
90°-120°	97.5	7.0
90°-150°	116.5	8.4
90°-180°	116.0	8.3
0°-180°	1391.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	414	414	414	414	414	
5°	414	413	411	414	414	39
15°	394	396	395	400	400	111
25°	356	361	362	368	368	164
35°	307	314	320	326	328	192
45°	251	262	273	281	285	193
55°	191	206	222	234	238	171
65°	132	150	170	183	188	131
75°	72	93	115	130	136	77
85°	22	45	68	84	88	23
90°	6	28	51	66	71	4
95°	5	22	45	59	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

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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	413.9	413.9	413.9	413.9	413.9
2.5°	416.1	414.8	411.2	414.8	414.3
5°	414.3	413.4	410.7	414.3	413.9
7.5°	411.2	411.2	408.5	413.0	412.5
10°	406.7	407.6	405.3	409.8	408.9
12.5°	401.3	402.6	401.3	405.3	404.4
15°	394.5	395.9	395.4	399.9	399.5
17.5°	386.4	389.1	388.6	392.7	391.8
20°	377.4	380.1	381.0	385.0	385.5
22.5°	367.9	370.6	372.0	377.4	376.9
25°	356.2	360.7	362.0	367.9	367.9
27.5°	344.9	349.9	352.6	357.5	358.0
30°	332.7	338.6	342.2	347.6	347.6
32.5°	319.2	326.0	330.9	336.8	338.1
35°	306.6	313.8	319.7	326.4	328.2
37.5°	293.1	301.2	307.9	315.6	317.0
40°	279.5	287.7	296.7	304.3	306.1
42.5°	264.7	275.0	284.5	293.1	295.8
45°	250.7	261.5	272.8	281.3	284.9
47.5°	235.8	248.0	260.6	270.1	272.8
50°	221.4	234.0	248.0	258.3	261.5
52.5°	206.0	219.6	235.4	246.2	250.2
55°	191.2	206.0	222.3	234.4	238.1
57.5°	176.7	192.1	209.7	221.8	225.9
60°	161.4	177.6	196.1	208.7	213.7
62.5°	147.0	163.7	183.5	196.1	200.6
65°	132.1	149.7	169.5	183.1	187.6
67.5°	117.2	135.7	155.5	170.4	174.0
70°	101.4	120.8	142.5	156.9	161.4
72.5°	87.0	106.4	128.9	143.8	148.3
75°	71.7	92.9	115.4	130.3	135.7
77.5°	58.6	79.8	102.3	118.1	122.2
80°	44.6	66.7	90.2	105.5	110.0
82.5°	32.5	55.0	78.9	94.2	98.7
85°	22.1	44.6	68.5	83.9	88.4
87.5°	13.5	36.1	59.1	74.4	78.9
90°	5.9	28.0	50.9	66.3	70.8
92.5°	5.4	24.8	47.3	62.2	66.3
95°	5.0	22.5	44.6	58.6	63.1
97.5°	4.5	20.7	41.9	55.5	60.0
100°	4.1	18.5	39.2	52.3	56.8
102.5°	3.6	16.2	36.5	49.1	53.7
105°	3.6	14.4	33.8	46.4	50.5
107.5°	3.2	12.6	31.1	43.3	47.3
110°	2.7	10.8	28.9	40.6	44.2



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	2.7	9.0	26.2	37.4	41.5
115°	2.3	7.7	23.9	34.7	38.3
117.5°	2.3	5.9	21.2	32.0	35.6
120°	1.8	4.1	18.9	29.3	32.5
122.5°	1.8	2.7	16.7	26.6	29.8
125°	1.4	1.4	14.4	23.9	27.1
127.5°	1.4	0.9	12.2	21.2	24.3
130°	1.4	0.9	9.9	18.5	21.2
132.5°	0.9	0.9	7.7	15.8	18.9
135°	0.9	0.5	5.4	13.5	15.8
137.5°	0.9	0.5	3.6	10.8	13.1
140°	0.5	0.5	1.8	8.6	10.8
142.5°	0.5	0.0	0.0	5.9	8.1
145°	0.5	0.0	0.0	3.6	5.4
147.5°	0.0	0.0	0.0	1.4	3.2
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)