

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: P1037311

Luminaire Tested: S123DS-B340DB35-4F0-XX-W2A-D

Issue Date: 5/2/2025

Test Information

Test Method: LM-79-2019
Report Number: P1037311
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-B340DB35-4F0-XX-W2A-D
Description: Define 3 Direct Surface with 3500K BioUP LEDs {m-DER=0.721} {m-EER=0.792}
Light Source: -
Ballast/Driver: -

Summary

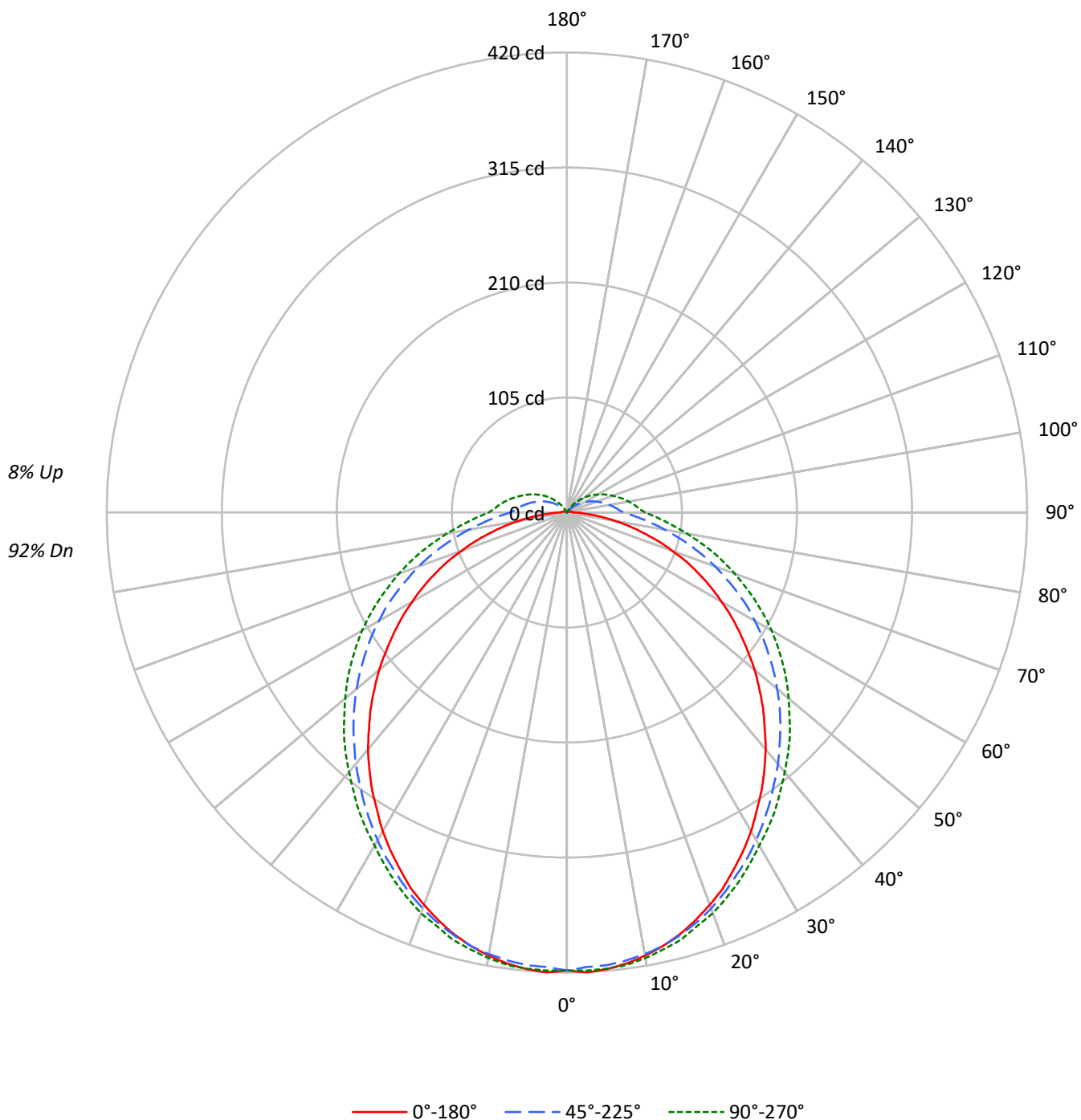
Lumens per Lamp: N/A
Luminaire Lumens: 1405.0 lumens
Efficiency: N/A
Efficacy: 108.1 lumens/watt
Spacing Criteria (0/90/45): 1.2 / 1.25 / 1.37
Luminous Opening: Rectangular (W 0.25' x L: 4' x H: 0')
CIE Type: Direct

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: P1037311

CATALOG NUMBER: S123DS-B340DB35-4F0-XX-W2A-D

Luminous Intensity Polar Plot



TEST NUMBER: P1037311

CATALOG NUMBER: S123DS-B340DB35-4F0-XX-W2A-D

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°	4500	4500	4500
5°	4522	4483	4518
10°	4490	4475	4514
15°	4441	4451	4496
20°	4367	4408	4460
25°	4273	4343	4413
30°	4177	4295	4364
35°	4070	4243	4356
40°	3967	4211	4345
45°	3854	4194	4381
50°	3744	4195	4423
55°	3624	4213	4513
60°	3509	4265	4648
65°	3398	4360	4824
70°	3226	4529	5130
75°	3011	4849	5702
80°	2796	5647	6887
85°	2754	8546	11029

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°

Vertical Angle: 87.5°

Luminance: 19667 cd/sqm

TEST NUMBER: P1037311

CATALOG NUMBER: S123DS-B340DB35-4F0-XX-W2A-D

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	39.7	2.8
10°-20°	113.1	8.0
20°-30°	169.1	12.0
30°-40°	201.9	14.4
40°-50°	211.2	15.0
50°-60°	198.2	14.1
60°-70°	165.5	11.8
70°-80°	118.4	8.4
80°-90°	70.4	5.0
90°-100°	44.3	3.1
100°-110°	32.5	2.3
110°-120°	21.7	1.5
120°-130°	12.4	0.9
130°-140°	5.6	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°	321.8	22.9
0°-40°	523.6	37.3
0°-60°	933.0	66.4
0°-90°	1287.4	91.6
90°-120°	98.5	7.0
90°-150°	117.6	8.4
90°-180°	118.0	8.4
0°-180°	1405.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	418	418	418	418	418	
5°	418	418	415	418	418	40
15°	398	400	399	404	404	112
25°	360	364	366	372	372	166
35°	310	317	323	330	332	194
45°	253	264	276	284	288	195
55°	193	208	224	237	240	173
65°	133	151	171	185	189	132
75°	72	94	117	132	137	77
85°	22	45	69	85	89	23
90°	6	28	52	67	72	4
95°	5	23	45	59	64	4
105°	4	15	34	47	51	4
115°	2	8	24	35	39	2
125°	1	1	15	24	27	1
135°	1	0	6	14	16	1
145°	0	0	0	4	6	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: P1037311

CATALOG NUMBER: S123DS-B340DB35-4F0-XX-W2A-D

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	418.1	418.1	418.1	418.1	418.1
2.5°	420.3	419.0	415.3	419.0	418.5
5°	418.5	417.6	414.9	418.5	418.1
7.5°	415.3	415.3	412.6	417.1	416.7
10°	410.8	411.7	409.4	414.0	413.0
12.5°	405.3	406.7	405.3	409.4	408.5
15°	398.5	399.8	399.4	403.9	403.5
17.5°	390.3	393.0	392.6	396.7	395.7
20°	381.2	383.9	384.8	388.9	389.4
22.5°	371.6	374.3	375.7	381.2	380.7
25°	359.8	364.3	365.7	371.6	371.6
27.5°	348.4	353.4	356.1	361.1	361.6
30°	336.1	342.0	345.6	351.1	351.1
32.5°	322.4	329.3	334.3	340.2	341.6
35°	309.7	317.0	322.9	329.7	331.5
37.5°	296.0	304.2	311.0	318.8	320.1
40°	282.3	290.5	299.7	307.4	309.2
42.5°	267.3	277.8	287.4	296.0	298.7
45°	253.2	264.1	275.5	284.2	287.8
47.5°	238.2	250.5	263.2	272.8	275.5
50°	223.6	236.4	250.5	260.9	264.1
52.5°	208.1	221.8	237.7	248.6	252.7
55°	193.1	208.1	224.5	236.8	240.5
57.5°	178.5	194.0	211.8	224.1	228.2
60°	163.0	179.4	198.1	210.9	215.9
62.5°	148.5	165.3	185.3	198.1	202.7
65°	133.4	151.2	171.2	184.9	189.4
67.5°	118.4	137.1	157.1	172.1	175.8
70°	102.5	122.0	143.9	158.5	163.0
72.5°	87.9	107.5	130.2	145.3	149.8
75°	72.4	93.8	116.6	131.6	137.1
77.5°	59.2	80.6	103.4	119.3	123.4
80°	45.1	67.4	91.1	106.6	111.1
82.5°	32.8	55.6	79.7	95.2	99.7
85°	22.3	45.1	69.2	84.7	89.3
87.5°	13.7	36.4	59.7	75.1	79.7
90°	5.9	28.2	51.5	66.9	71.5
92.5°	5.5	25.0	47.8	62.8	66.9
95°	5.0	22.8	45.1	59.2	63.8
97.5°	4.6	20.9	42.4	56.0	60.6
100°	4.1	18.7	39.6	52.8	57.4
102.5°	3.6	16.4	36.9	49.6	54.2
105°	3.6	14.6	34.2	46.9	51.0
107.5°	3.2	12.8	31.4	43.7	47.8
110°	2.7	10.9	29.1	41.0	44.6



TEST NUMBER: P1037311

CATALOG NUMBER: S123DS-B340DB35-4F0-XX-W2A-D

CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	2.7	9.1	26.4	37.8	41.9
115°	2.3	7.7	24.1	35.1	38.7
117.5°	2.3	5.9	21.4	32.3	36.0
120°	1.8	4.1	19.1	29.6	32.8
122.5°	1.8	2.7	16.8	26.9	30.1
125°	1.4	1.4	14.6	24.1	27.3
127.5°	1.4	0.9	12.3	21.4	24.6
130°	1.4	0.9	10.0	18.7	21.4
132.5°	0.9	0.9	7.7	15.9	19.1
135°	0.9	0.5	5.5	13.7	15.9
137.5°	0.9	0.5	3.6	10.9	13.2
140°	0.5	0.5	1.8	8.7	10.9
142.5°	0.5	0.0	0.0	5.9	8.2
145°	0.5	0.0	0.0	3.6	5.5
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)