

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: P1037301

Luminaire Tested: S123DS-B340DB2750-4F0-XX-W2A-D_5000K

Issue Date: 5/2/2025

Test Information

Test Method: LM-79-2019
Report Number: P1037301
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-B340DB2750-4F0-XX-W2A-D_5000K
Description: Define 3 Direct Surface with 5000K BioUP LEDs {m-DER=1.015} {m-EER=1.115}
Light Source: -
Ballast/Driver: -

Summary

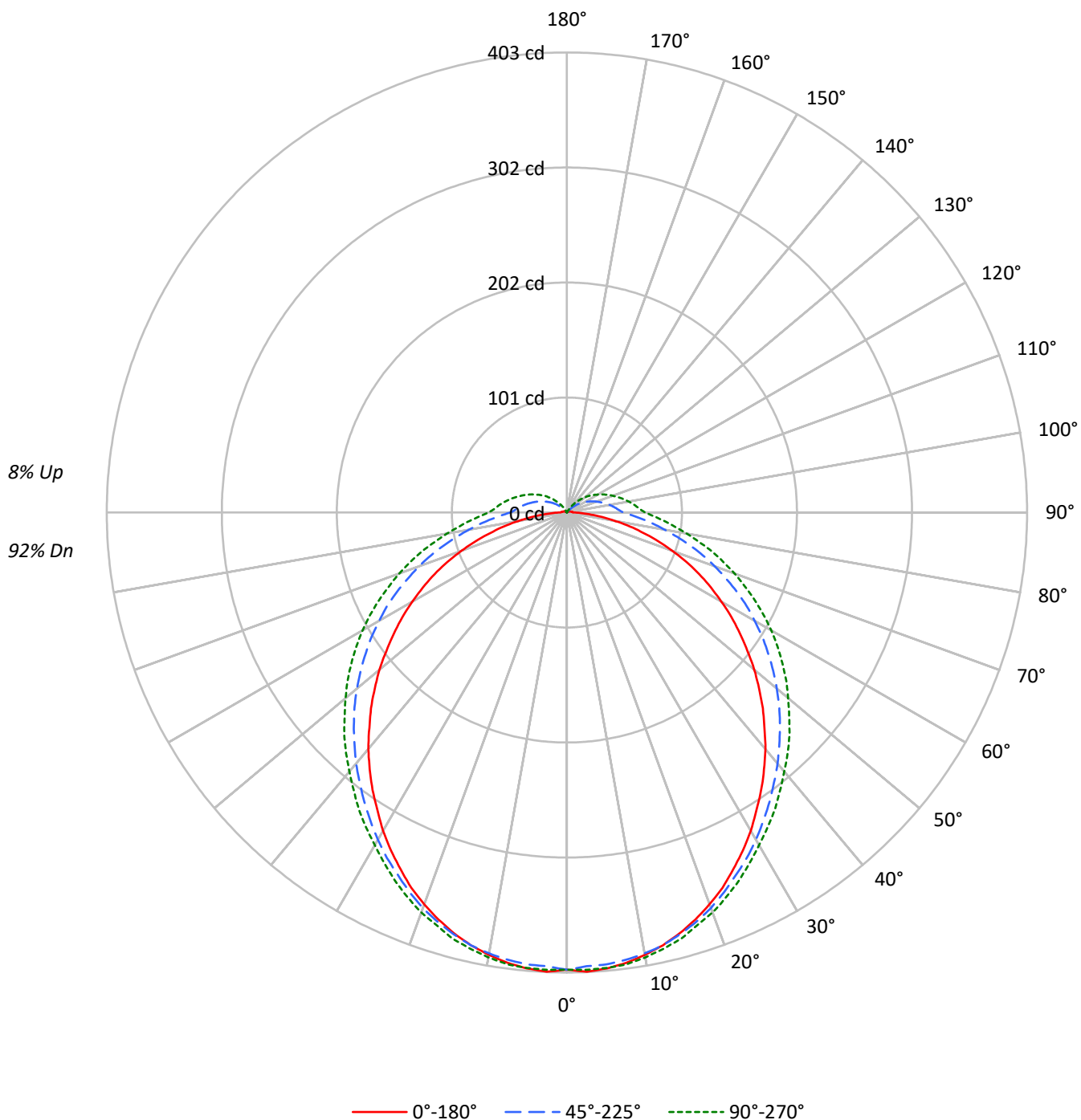
Lumens per Lamp: N/A
Luminaire Lumens: 1346.0 lumens
Efficiency: N/A
Efficacy: 103.5 lumens/watt
Spacing Criteria (0/90/45): 1.2 / 1.25 / 1.37
Luminous Opening: Rectangular (W 0.25' x L: 4' x H: 0')
CIE Type: Direct

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	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°	4311	4311	4311
5°	4332	4294	4327
10°	4301	4287	4325
15°	4254	4264	4307
20°	4183	4223	4273
25°	4094	4160	4228
30°	4002	4115	4181
35°	3899	4064	4173
40°	3801	4034	4162
45°	3693	4017	4197
50°	3587	4019	4237
55°	3472	4037	4324
60°	3363	4086	4452
65°	3255	4177	4623
70°	3091	4340	4916
75°	2886	4645	5461
80°	2678	5411	6602
85°	2643	8188	10559

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°

Vertical Angle: 87.5°

Luminance: 18828 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	38.0	2.8
10°-20°	108.3	8.0
20°-30°	162.0	12.0
30°-40°	193.4	14.4
40°-50°	202.3	15.0
50°-60°	189.9	14.1
60°-70°	158.6	11.8
70°-80°	113.4	8.4
80°-90°	67.5	5.0
90°-100°	42.4	3.2
100°-110°	31.2	2.3
110°-120°	20.8	1.5
120°-130°	11.9	0.9
130°-140°	5.3	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°	308.3	22.9
0°-40°	501.6	37.3
0°-60°	893.8	66.4
0°-90°	1233.3	91.6
90°-120°	94.4	7.0
90°-150°	112.7	8.4
90°-180°	113.0	8.4
0°-180°	1346.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	400	400	400	400	400	
5°	401	400	397	401	400	38
15°	382	383	383	387	386	108
25°	345	349	350	356	356	159
35°	297	304	309	316	318	186
45°	243	253	264	272	276	187
55°	185	199	215	227	230	166
65°	128	145	164	177	182	126
75°	69	90	112	126	131	74
85°	21	43	66	81	86	22
90°	6	27	49	64	68	4
95°	5	22	43	57	61	4
105°	4	14	33	45	49	4
115°	2	7	23	34	37	2
125°	1	1	14	23	26	1
135°	1	0	5	13	15	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°	400.5	400.5	400.5	400.5	400.5
2.5°	402.7	401.4	397.9	401.4	400.9
5°	400.9	400.1	397.4	400.9	400.5
7.5°	397.9	397.9	395.3	399.6	399.2
10°	393.5	394.4	392.2	396.6	395.7
12.5°	388.3	389.6	388.3	392.2	391.3
15°	381.7	383.1	382.6	387.0	386.5
17.5°	373.9	376.5	376.1	380.0	379.1
20°	365.2	367.8	368.7	372.6	373.0
22.5°	356.0	358.6	359.9	365.2	364.7
25°	344.7	349.0	350.3	356.0	356.0
27.5°	333.8	338.6	341.2	346.0	346.4
30°	322.0	327.6	331.1	336.4	336.4
32.5°	308.9	315.4	320.2	325.9	327.2
35°	296.7	303.6	309.3	315.9	317.6
37.5°	283.6	291.4	298.0	305.4	306.7
40°	270.5	278.3	287.1	294.5	296.2
42.5°	256.1	266.1	275.3	283.6	286.2
45°	242.6	253.0	263.9	272.2	275.7
47.5°	228.2	240.0	252.2	261.3	263.9
50°	214.2	226.4	240.0	250.0	253.0
52.5°	199.4	212.5	227.7	238.2	242.1
55°	185.0	199.4	215.1	226.9	230.4
57.5°	171.0	185.9	202.9	214.6	218.6
60°	156.2	171.9	189.8	202.0	206.8
62.5°	142.2	158.4	177.6	189.8	194.1
65°	127.8	144.8	164.0	177.1	181.5
67.5°	113.4	131.3	150.5	164.9	168.4
70°	98.2	116.9	137.9	151.8	156.2
72.5°	84.2	103.0	124.8	139.2	143.5
75°	69.4	89.9	111.7	126.1	131.3
77.5°	56.7	77.2	99.0	114.3	118.2
80°	43.2	64.6	87.3	102.1	106.5
82.5°	31.4	53.2	76.3	91.2	95.5
85°	21.4	43.2	66.3	81.1	85.5
87.5°	13.1	34.9	57.2	72.0	76.3
90°	5.7	27.0	49.3	64.1	68.5
92.5°	5.2	24.0	45.8	60.2	64.1
95°	4.8	21.8	43.2	56.7	61.1
97.5°	4.4	20.1	40.6	53.7	58.0
100°	3.9	17.9	38.0	50.6	55.0
102.5°	3.5	15.7	35.3	47.6	51.9
105°	3.5	14.0	32.7	44.9	48.9
107.5°	3.1	12.2	30.1	41.9	45.8
110°	2.6	10.5	27.9	39.3	42.8



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	2.6	8.7	25.3	36.2	40.1
115°	2.2	7.4	23.1	33.6	37.1
117.5°	2.2	5.7	20.5	31.0	34.5
120°	1.7	3.9	18.3	28.4	31.4
122.5°	1.7	2.6	16.1	25.7	28.8
125°	1.3	1.3	14.0	23.1	26.2
127.5°	1.3	0.9	11.8	20.5	23.6
130°	1.3	0.9	9.6	17.9	20.5
132.5°	0.9	0.9	7.4	15.3	18.3
135°	0.9	0.4	5.2	13.1	15.3
137.5°	0.9	0.4	3.5	10.5	12.7
140°	0.4	0.4	1.7	8.3	10.5
142.5°	0.4	0.0	0.0	5.7	7.9
145°	0.4	0.0	0.0	3.5	5.2
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)