

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: P1037327

Luminaire Tested: S123DS-B560DB2750-4F0-XX-W2A-D_2700K

Issue Date: 5/2/2025

Test Information

Test Method: LM-79-2019
Report Number: P1037327
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-B560DB2750-4F0-XX-W2A-D_2700K
Description: Define 3 Direct Surface with 2700K BioUP LEDs {m-DER=0.473} {m-EER=0.52}
Light Source: -
Ballast/Driver: -

Summary

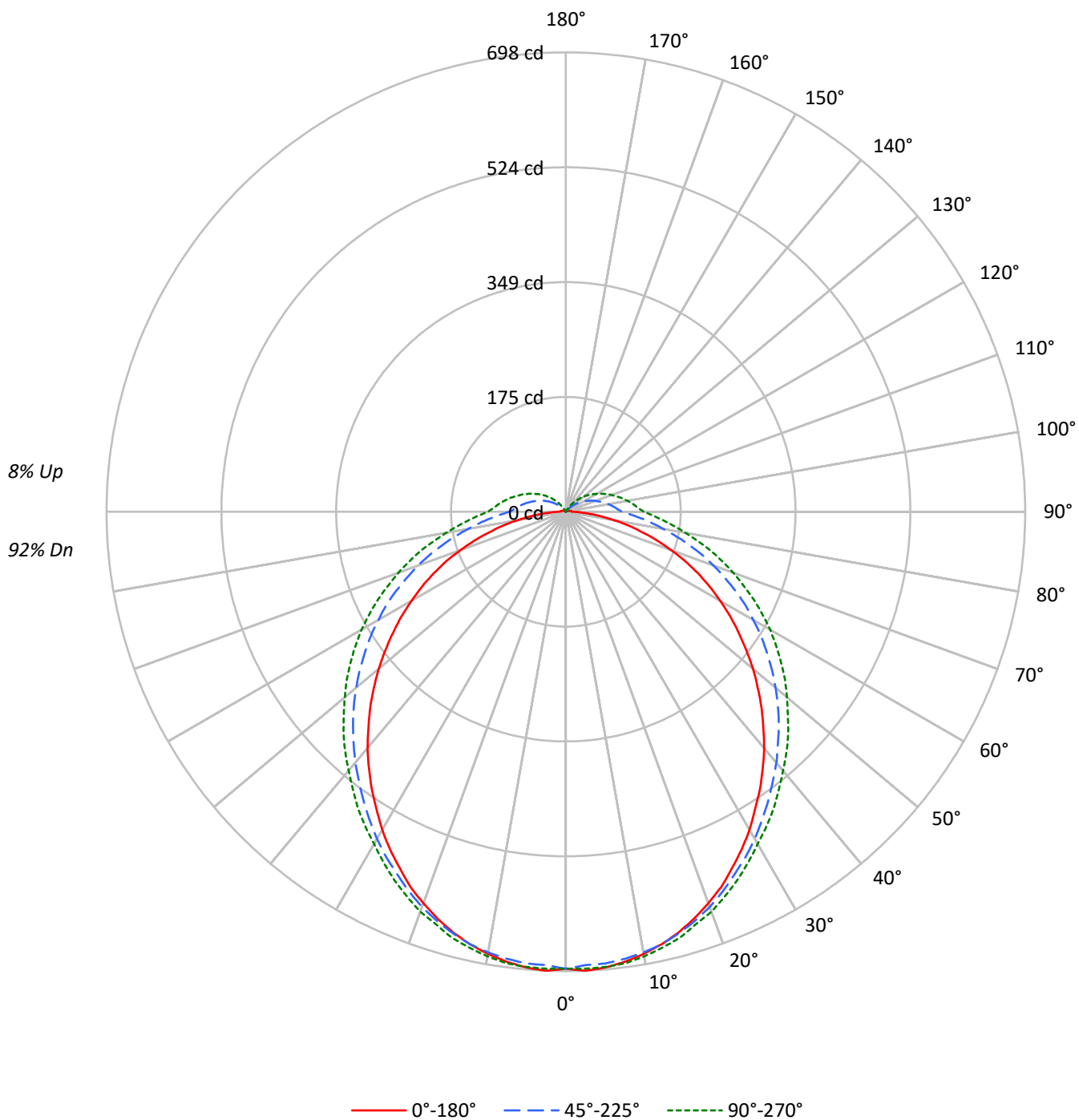
Lumens per Lamp: N/A
Luminaire Lumens: 2333.0 lumens
Efficiency: N/A
Efficacy: 97.2 lumens/watt
Spacing Criteria (0/90/45): 1.2 / 1.25 / 1.37
Luminous Opening: Rectangular (W 0.25' x L: 4' x H: 0')
CIE Type: Direct

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

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	7472	7472	7472
5°	7508	7444	7501
10°	7455	7430	7497
15°	7374	7390	7466
20°	7250	7320	7405
25°	7095	7212	7329
30°	6937	7133	7246
35°	6757	7045	7234
40°	6587	6992	7215
45°	6400	6964	7275
50°	6218	6965	7345
55°	6016	6996	7493
60°	5828	7081	7716
65°	5644	7241	8013
70°	5353	7522	8519
75°	4999	8052	9466
80°	4643	9372	11437
85°	4582	14190	18303

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°

Vertical Angle: 87.5°

Luminance: 32648 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	65.9	2.8
10°-20°	187.7	8.0
20°-30°	280.7	12.0
30°-40°	335.2	14.4
40°-50°	350.7	15.0
50°-60°	329.1	14.1
60°-70°	274.9	11.8
70°-80°	196.5	8.4
80°-90°	117.0	5.0
90°-100°	73.5	3.2
100°-110°	54.0	2.3
110°-120°	36.1	1.5
120°-130°	20.6	0.9
130°-140°	9.2	0.4
140°-150°	1.9	0.1
150°-160°	0.0	0.0
160°-170°	0.0	0.0
170°-180°	0.0	0.0
0°-30°	534.3	22.9
0°-40°	869.5	37.3
0°-60°	1549.3	66.4
0°-90°	2137.7	91.6
90°-120°	163.6	7.0
90°-150°	195.3	8.4
90°-180°	195.0	8.4
0°-180°	2333.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	694	694	694	694	694	
5°	695	693	689	695	694	66
15°	662	664	663	671	670	186
25°	597	605	607	617	617	275
35°	514	526	536	548	550	322
45°	420	439	458	472	478	324
55°	321	346	373	393	399	287
65°	222	251	284	307	315	219
75°	120	156	194	218	228	128
85°	37	75	115	141	148	38
90°	10	47	85	111	119	7
95°	8	38	75	98	106	6
105°	6	24	57	78	85	6
115°	4	13	40	58	64	4
125°	2	2	24	40	45	2
135°	2	1	9	23	26	1
145°	1	0	0	6	9	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°	694.2	694.2	694.2	694.2	694.2
2.5°	698.0	695.7	689.6	695.7	694.9
5°	694.9	693.4	688.9	694.9	694.2
7.5°	689.6	689.6	685.1	692.7	691.9
10°	682.1	683.6	679.8	687.4	685.9
12.5°	673.0	675.3	673.0	679.8	678.3
15°	661.7	663.9	663.2	670.7	670.0
17.5°	648.1	652.6	651.8	658.6	657.1
20°	632.9	637.5	639.0	645.8	646.5
22.5°	617.1	621.6	623.9	632.9	632.2
25°	597.4	605.0	607.2	617.1	617.1
27.5°	578.5	586.8	591.3	599.7	600.4
30°	558.1	567.9	573.9	583.0	583.0
32.5°	535.4	546.7	555.0	564.9	567.1
35°	514.2	526.3	536.1	547.5	550.5
37.5°	491.5	505.1	516.5	529.3	531.6
40°	468.8	482.4	497.6	510.4	513.5
42.5°	443.9	461.3	477.2	491.5	496.1
45°	420.4	438.6	457.5	471.9	477.9
47.5°	395.5	415.9	437.1	453.0	457.5
50°	371.3	392.5	415.9	433.3	438.6
52.5°	345.6	368.3	394.7	412.9	419.7
55°	320.6	345.6	372.8	393.2	399.3
57.5°	296.4	322.1	351.6	372.0	378.9
60°	270.7	297.9	328.9	350.1	358.4
62.5°	246.5	274.5	307.8	328.9	336.5
65°	221.6	251.1	284.3	307.0	314.6
67.5°	196.6	227.6	260.9	285.8	291.9
70°	170.1	202.7	239.0	263.2	270.7
72.5°	145.9	178.5	216.3	241.2	248.8
75°	120.2	155.8	193.6	218.5	227.6
77.5°	98.3	133.8	171.7	198.1	204.9
80°	74.9	111.9	151.2	176.9	184.5
82.5°	54.4	92.3	132.3	158.0	165.6
85°	37.1	74.9	114.9	140.7	148.2
87.5°	22.7	60.5	99.1	124.8	132.3
90°	9.8	46.9	85.4	111.2	118.7
92.5°	9.1	41.6	79.4	104.4	111.2
95°	8.3	37.8	74.9	98.3	105.9
97.5°	7.6	34.8	70.3	93.0	100.6
100°	6.8	31.0	65.8	87.7	95.3
102.5°	6.0	27.2	61.3	82.4	90.0
105°	6.0	24.2	56.7	77.9	84.7
107.5°	5.3	21.2	52.2	72.6	79.4
110°	4.5	18.1	48.4	68.1	74.1



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	4.5	15.1	43.9	62.8	69.6
115°	3.8	12.9	40.1	58.2	64.3
117.5°	3.8	9.8	35.5	53.7	59.7
120°	3.0	6.8	31.8	49.2	54.4
122.5°	3.0	4.5	28.0	44.6	49.9
125°	2.3	2.3	24.2	40.1	45.4
127.5°	2.3	1.5	20.4	35.5	40.8
130°	2.3	1.5	16.6	31.0	35.5
132.5°	1.5	1.5	12.9	26.5	31.8
135°	1.5	0.8	9.1	22.7	26.5
137.5°	1.5	0.8	6.0	18.1	21.9
140°	0.8	0.8	3.0	14.4	18.1
142.5°	0.8	0.0	0.0	9.8	13.6
145°	0.8	0.0	0.0	6.0	9.1
147.5°	0.0	0.0	0.0	2.3	5.3
150°	0.0	0.0	0.0	0.0	1.5
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)