

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: P1037344

Luminaire Tested: S123DS-B560DB40-4F0-XX-W2A-D

Issue Date: 5/2/2025

Test Information

Test Method: LM-79-2019
Report Number: P1037344
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-B560DB40-4F0-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

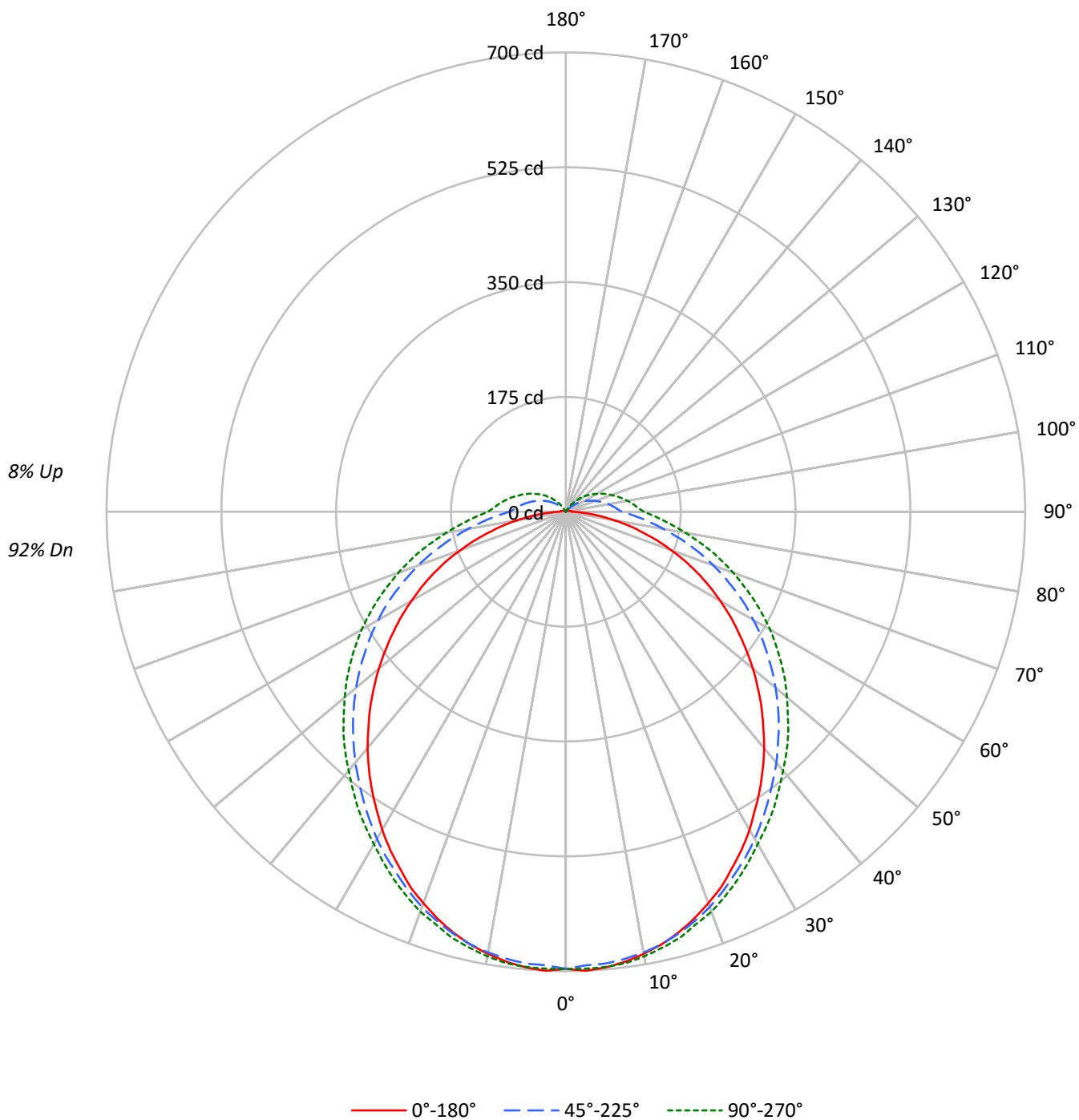
Lumens per Lamp: N/A
Luminaire Lumens: 2340.0 lumens
Efficiency: N/A
Efficacy: 97.5 lumens/watt
Spacing Criteria (0/90/45): 1.2 / 1.25 / 1.37
Luminous Opening: Rectangular (W 0.25' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 24
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°	7495	7495	7495
5°	7531	7466	7524
10°	7477	7453	7519
15°	7396	7413	7489
20°	7271	7341	7428
25°	7116	7233	7350
30°	6957	7155	7269
35°	6778	7066	7256
40°	6607	7013	7236
45°	6419	6986	7296
50°	6236	6986	7366
55°	6035	7017	7516
60°	5845	7102	7739
65°	5659	7264	8036
70°	5372	7544	8545
75°	5016	8077	9495
80°	4655	9403	11474
85°	4594	14240	18365

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°

Vertical Angle: 87.5°

Luminance: 32746 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	66.0	2.8
10°-20°	188.3	8.0
20°-30°	281.6	12.0
30°-40°	336.2	14.4
40°-50°	351.8	15.0
50°-60°	330.1	14.1
60°-70°	275.7	11.8
70°-80°	197.1	8.4
80°-90°	117.3	5.0
90°-100°	73.7	3.1
100°-110°	54.2	2.3
110°-120°	36.2	1.5
120°-130°	20.7	0.9
130°-140°	9.3	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°	535.9	22.9
0°-40°	872.1	37.3
0°-60°	1553.9	66.4
0°-90°	2144.1	91.6
90°-120°	164.1	7.0
90°-150°	195.9	8.4
90°-180°	196.0	8.4
0°-180°	2340.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	696	696	696	696	696	
5°	697	696	691	697	696	66
15°	664	666	665	673	672	187
25°	599	607	609	619	619	276
35°	516	528	538	549	552	323
45°	422	440	459	473	479	325
55°	322	347	374	394	400	288
65°	222	252	285	308	316	220
75°	121	156	194	219	228	129
85°	37	75	115	141	149	38
90°	10	47	86	112	119	7
95°	8	38	75	99	106	6
105°	6	24	57	78	85	6
115°	4	13	40	58	64	4
125°	2	2	24	40	46	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°	696.3	696.3	696.3	696.3	696.3
2.5°	700.1	697.8	691.7	697.8	697.0
5°	697.0	695.5	691.0	697.0	696.3
7.5°	691.7	691.7	687.2	694.7	694.0
10°	684.1	685.6	681.9	689.4	687.9
12.5°	675.0	677.3	675.0	681.9	680.3
15°	663.7	665.9	665.2	672.8	672.0
17.5°	650.0	654.6	653.8	660.6	659.1
20°	634.8	639.4	640.9	647.7	648.5
22.5°	618.9	623.5	625.7	634.8	634.1
25°	599.2	606.8	609.0	618.9	618.9
27.5°	580.2	588.6	593.1	601.5	602.2
30°	559.7	569.6	575.7	584.8	584.8
32.5°	537.0	548.4	556.7	566.6	568.8
35°	515.8	527.9	537.7	549.1	552.2
37.5°	493.0	506.7	518.0	530.9	533.2
40°	470.2	483.9	499.1	512.0	515.0
42.5°	445.2	462.7	478.6	493.0	497.5
45°	421.7	439.9	458.9	473.3	479.3
47.5°	396.7	417.2	438.4	454.3	458.9
50°	372.4	393.6	417.2	434.6	439.9
52.5°	346.6	369.4	395.9	414.1	420.9
55°	321.6	346.6	373.9	394.4	400.5
57.5°	297.3	323.1	352.7	373.2	380.0
60°	271.5	298.8	329.9	351.2	359.5
62.5°	247.3	275.3	308.7	329.9	337.5
65°	222.2	251.8	285.2	307.9	315.5
67.5°	197.2	228.3	261.7	286.7	292.8
70°	170.7	203.3	239.7	263.9	271.5
72.5°	146.4	179.0	216.9	241.9	249.5
75°	120.6	156.2	194.2	219.2	228.3
77.5°	98.6	134.2	172.2	198.7	205.5
80°	75.1	112.3	151.7	177.5	185.1
82.5°	54.6	92.5	132.7	158.5	166.1
85°	37.2	75.1	115.3	141.1	148.7
87.5°	22.8	60.7	99.4	125.1	132.7
90°	9.9	47.0	85.7	111.5	119.1
92.5°	9.1	41.7	79.6	104.7	111.5
95°	8.3	37.9	75.1	98.6	106.2
97.5°	7.6	34.9	70.5	93.3	100.9
100°	6.8	31.1	66.0	88.0	95.6
102.5°	6.1	27.3	61.4	82.7	90.3
105°	6.1	24.3	56.9	78.1	84.9
107.5°	5.3	21.2	52.3	72.8	79.6
110°	4.6	18.2	48.5	68.3	74.3



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	4.6	15.2	44.0	63.0	69.8
115°	3.8	12.9	40.2	58.4	64.5
117.5°	3.8	9.9	35.6	53.9	59.9
120°	3.0	6.8	31.9	49.3	54.6
122.5°	3.0	4.6	28.1	44.7	50.1
125°	2.3	2.3	24.3	40.2	45.5
127.5°	2.3	1.5	20.5	35.6	41.0
130°	2.3	1.5	16.7	31.1	35.6
132.5°	1.5	1.5	12.9	26.5	31.9
135°	1.5	0.8	9.1	22.8	26.5
137.5°	1.5	0.8	6.1	18.2	22.0
140°	0.8	0.8	3.0	14.4	18.2
142.5°	0.8	0.0	0.0	9.9	13.7
145°	0.8	0.0	0.0	6.1	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)