

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: P1037341

Luminaire Tested: S123DS-B560DB35-4F0-XX-W2A-D

Issue Date: 5/2/2025

Test Information

Test Method: LM-79-2019
Report Number: P1037341
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-B560DB35-4F0-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

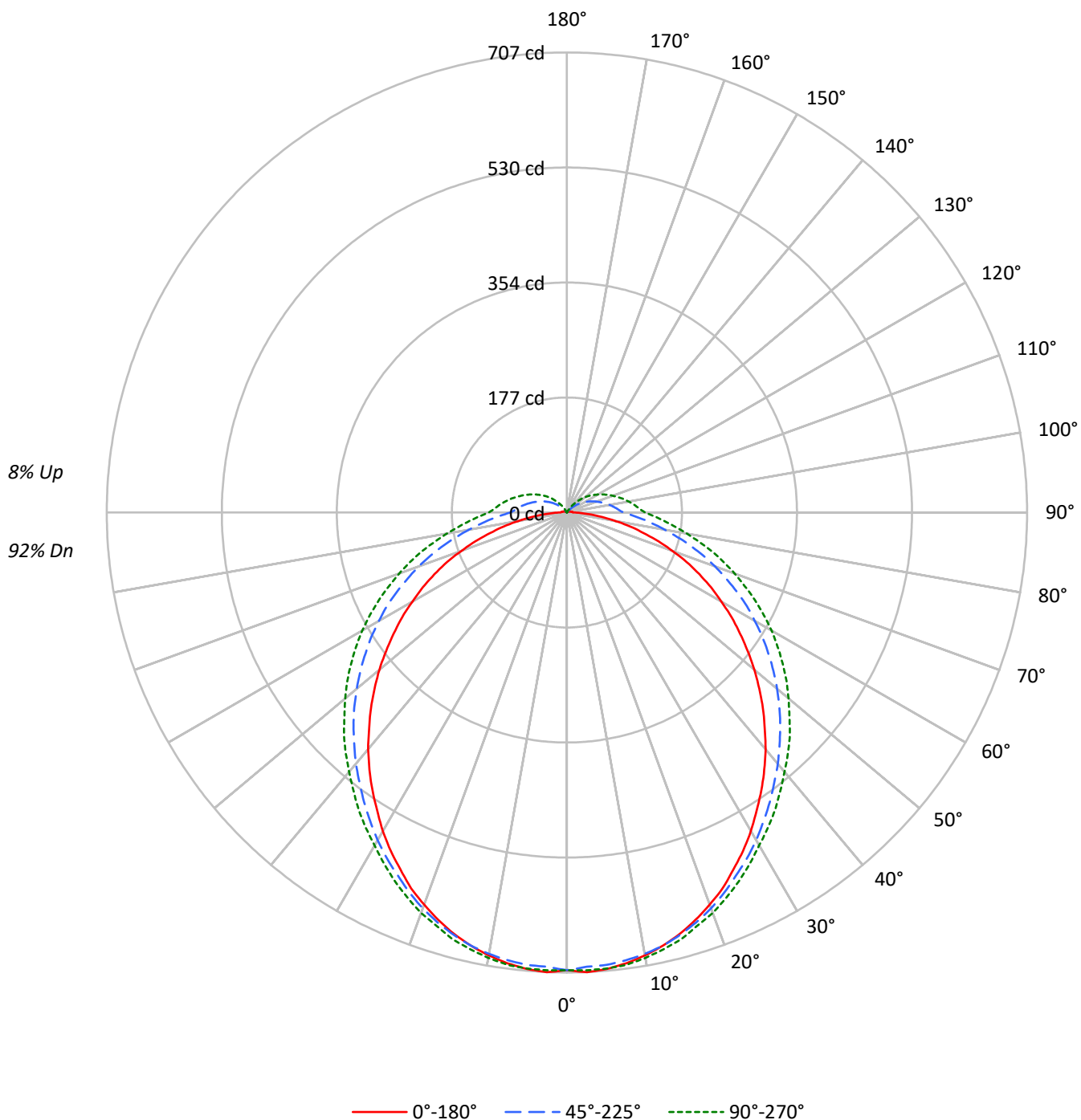
Lumens per Lamp: N/A
Luminaire Lumens: 2364.0 lumens
Efficiency: N/A
Efficacy: 98.5 lumens/watt
Spacing Criteria (0/90/45): 1.2 / 1.25 / 1.37
Luminous Opening: Rectangular (W 0.25' x L: 4' x H: 0')
CIE Type: Direct

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°	7571	7571	7571
5°	7609	7542	7600
10°	7554	7529	7596
15°	7472	7489	7565
20°	7346	7417	7504
25°	7189	7308	7426
30°	7029	7229	7343
35°	6846	7139	7330
40°	6676	7085	7311
45°	6485	7057	7372
50°	6300	7057	7442
55°	6097	7090	7593
60°	5905	7175	7819
65°	5718	7338	8120
70°	5426	7619	8633
75°	5065	8160	9590
80°	4705	9496	11592
85°	4631	14388	18550

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°

Vertical Angle: 87.5°

Luminance: 33092 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	66.7	2.8
10°-20°	190.2	8.0
20°-30°	284.5	12.0
30°-40°	339.6	14.4
40°-50°	355.4	15.0
50°-60°	333.5	14.1
60°-70°	278.5	11.8
70°-80°	199.2	8.4
80°-90°	118.5	5.0
90°-100°	74.5	3.1
100°-110°	54.7	2.3
110°-120°	36.5	1.5
120°-130°	20.9	0.9
130°-140°	9.4	0.4
140°-150°	2.0	0.1
150°-160°	0.0	0.0
160°-170°	0.0	0.0
170°-180°	0.0	0.0
0°-30°	541.4	22.9
0°-40°	881.0	37.3
0°-60°	1569.9	66.4
0°-90°	2166.1	91.6
90°-120°	165.8	7.0
90°-150°	197.9	8.4
90°-180°	198.0	8.4
0°-180°	2364.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	703	703	703	703	703	
5°	704	703	698	704	703	67
15°	670	673	672	680	679	189
25°	605	613	615	625	625	279
35°	521	533	543	555	558	326
45°	426	444	464	478	484	329
55°	325	350	378	398	405	291
65°	224	254	288	311	319	222
75°	122	158	196	221	231	130
85°	38	76	116	142	150	39
90°	10	48	87	113	120	7
95°	8	38	76	100	107	7
105°	6	24	58	79	86	6
115°	4	13	41	59	65	4
125°	2	2	24	41	46	2
135°	2	1	9	23	27	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°	703.4	703.4	703.4	703.4	703.4
2.5°	707.2	704.9	698.8	704.9	704.2
5°	704.2	702.6	698.0	704.2	703.4
7.5°	698.8	698.8	694.2	701.9	701.1
10°	691.1	692.7	688.8	696.5	695.0
12.5°	682.0	684.3	682.0	688.8	687.3
15°	670.5	672.8	672.0	679.7	678.9
17.5°	656.7	661.3	660.5	667.4	665.9
20°	641.3	645.9	647.5	654.4	655.1
22.5°	625.3	629.8	632.1	641.3	640.6
25°	605.3	613.0	615.3	625.3	625.3
27.5°	586.2	594.6	599.2	607.6	608.4
30°	565.5	575.4	581.6	590.8	590.8
32.5°	542.5	554.0	562.4	572.4	574.7
35°	521.0	533.3	543.3	554.8	557.8
37.5°	498.1	511.8	523.3	536.4	538.7
40°	475.1	488.9	504.2	517.2	520.3
42.5°	449.8	467.4	483.5	498.1	502.7
45°	426.0	444.4	463.6	478.1	484.3
47.5°	400.7	421.4	442.9	459.0	463.6
50°	376.2	397.7	421.4	439.1	444.4
52.5°	350.2	373.2	400.0	418.4	425.3
55°	324.9	350.2	377.8	398.4	404.6
57.5°	300.4	326.4	356.3	377.0	383.9
60°	274.3	301.9	333.3	354.8	363.2
62.5°	249.8	278.1	311.9	333.3	341.0
65°	224.5	254.4	288.1	311.1	318.8
67.5°	199.2	230.6	264.4	289.6	295.8
70°	172.4	205.4	242.1	266.7	274.3
72.5°	147.9	180.8	219.1	244.4	252.1
75°	121.8	157.8	196.2	221.4	230.6
77.5°	99.6	135.6	173.9	200.8	207.7
80°	75.9	113.4	153.2	179.3	187.0
82.5°	55.2	93.5	134.1	160.1	167.8
85°	37.5	75.9	116.5	142.5	150.2
87.5°	23.0	61.3	100.4	126.4	134.1
90°	10.0	47.5	86.6	112.6	120.3
92.5°	9.2	42.1	80.5	105.7	112.6
95°	8.4	38.3	75.9	99.6	107.3
97.5°	7.7	35.2	71.3	94.2	101.9
100°	6.9	31.4	66.7	88.9	96.5
102.5°	6.1	27.6	62.1	83.5	91.2
105°	6.1	24.5	57.5	78.9	85.8
107.5°	5.4	21.5	52.9	73.6	80.5
110°	4.6	18.4	49.0	69.0	75.1

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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	4.6	15.3	44.4	63.6	70.5
115°	3.8	13.0	40.6	59.0	65.1
117.5°	3.8	10.0	36.0	54.4	60.5
120°	3.1	6.9	32.2	49.8	55.2
122.5°	3.1	4.6	28.4	45.2	50.6
125°	2.3	2.3	24.5	40.6	46.0
127.5°	2.3	1.5	20.7	36.0	41.4
130°	2.3	1.5	16.9	31.4	36.0
132.5°	1.5	1.5	13.0	26.8	32.2
135°	1.5	0.8	9.2	23.0	26.8
137.5°	1.5	0.8	6.1	18.4	22.2
140°	0.8	0.8	3.1	14.6	18.4
142.5°	0.8	0.0	0.0	10.0	13.8
145°	0.8	0.0	0.0	6.1	9.2
147.5°	0.0	0.0	0.0	2.3	5.4
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)