

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: P1037347

Luminaire Tested: S123DS-B560DB50-4F0-XX-W2A-D

Issue Date: 5/2/2025

Test Information

Test Method: LM-79-2019
Report Number: P1037347
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-B560DB50-4F0-XX-W2A-D
Description: Define 3 Direct Surface with 5000K BioUP LEDs {m-DER=1.015} {m-EER=1.115}
Light Source: -
Ballast/Driver: -

Summary

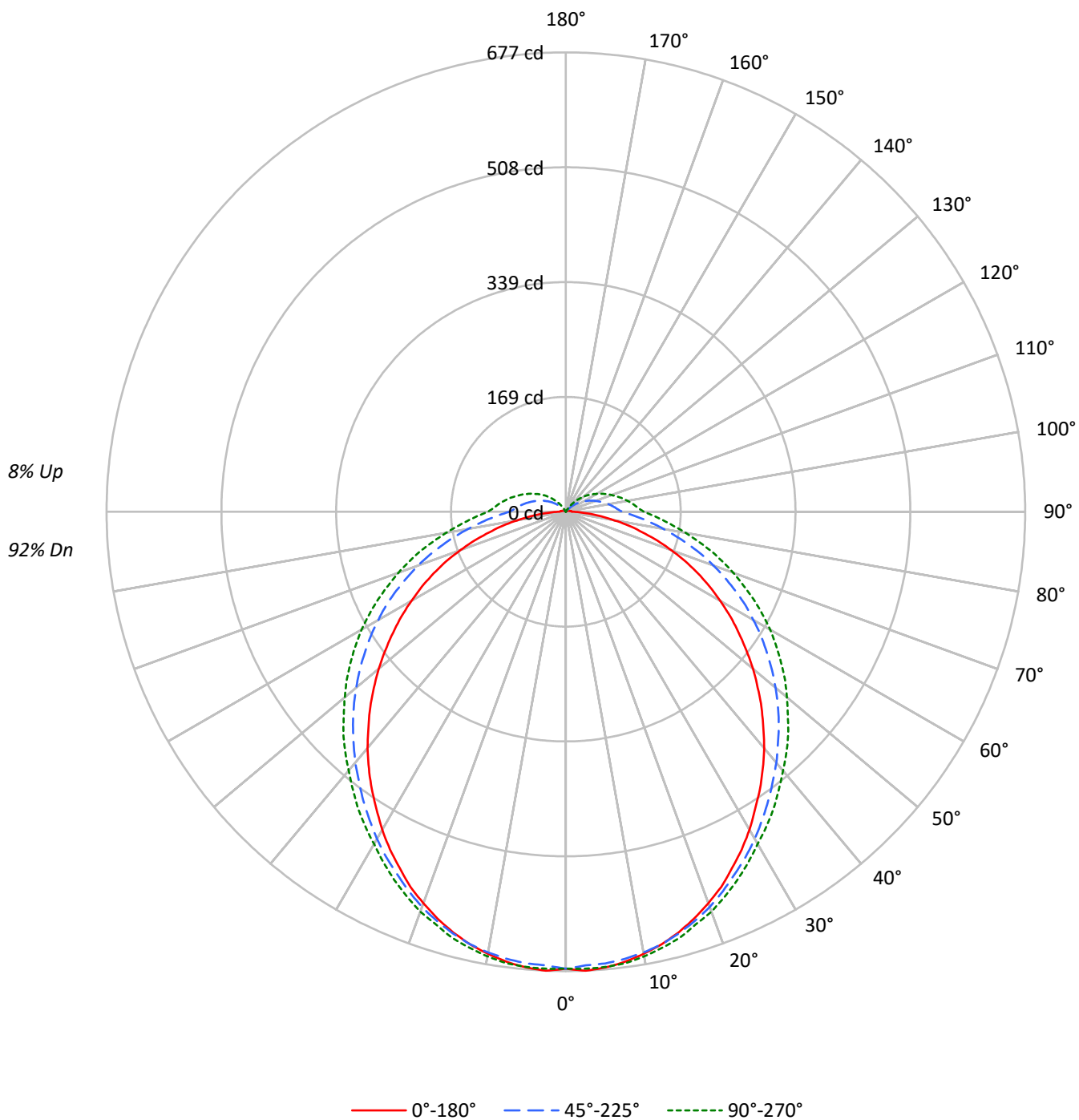
Lumens per Lamp: N/A
Luminaire Lumens: 2263.0 lumens
Efficiency: N/A
Efficacy: 94.3 lumens/watt
Spacing Criteria (0/90/45): 1.2 / 1.25 / 1.37
Luminous Opening: Rectangular (W 0.25' x L: 4' x H: 0')
CIE Type: Direct

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

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	7248	7248	7248
5°	7284	7220	7276
10°	7231	7207	7272
15°	7152	7169	7242
20°	7032	7100	7183
25°	6883	6995	7108
30°	6728	6919	7029
35°	6554	6834	7017
40°	6391	6781	6998
45°	6208	6756	7057
50°	6030	6755	7124
55°	5836	6786	7268
60°	5653	6870	7485
65°	5473	7025	7771
70°	5193	7295	8264
75°	4849	7810	9183
80°	4500	9093	11096
85°	4434	13770	17760

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°

Vertical Angle: 87.5°

Luminance: 31685 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	63.9	2.8
10°-20°	182.1	8.0
20°-30°	272.3	12.0
30°-40°	325.1	14.4
40°-50°	340.2	15.0
50°-60°	319.2	14.1
60°-70°	266.6	11.8
70°-80°	190.7	8.4
80°-90°	113.4	5.0
90°-100°	71.3	3.1
100°-110°	52.4	2.3
110°-120°	35.0	1.5
120°-130°	20.0	0.9
130°-140°	9.0	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°	518.3	22.9
0°-40°	843.4	37.3
0°-60°	1502.8	66.4
0°-90°	2073.5	91.6
90°-120°	158.7	7.0
90°-150°	189.5	8.4
90°-180°	189.0	8.4
0°-180°	2263.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	673	673	673	673	673	
5°	674	673	668	674	673	64
15°	642	644	643	651	650	181
25°	580	587	589	598	598	267
35°	499	510	520	531	534	312
45°	408	425	444	458	464	314
55°	311	335	362	381	387	278
65°	215	244	276	298	305	212
75°	117	151	188	212	221	125
85°	36	73	112	136	144	37
90°	10	46	83	108	115	7
95°	8	37	73	95	103	6
105°	6	24	55	76	82	6
115°	4	12	39	56	62	4
125°	2	2	24	39	44	2
135°	2	1	9	22	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°	673.4	673.4	673.4	673.4	673.4
2.5°	677.0	674.8	669.0	674.8	674.1
5°	674.1	672.6	668.2	674.1	673.4
7.5°	669.0	669.0	664.6	671.9	671.2
10°	661.6	663.1	659.4	666.8	665.3
12.5°	652.8	655.0	652.8	659.4	658.0
15°	641.8	644.0	643.3	650.6	649.9
17.5°	628.6	633.0	632.3	638.9	637.4
20°	613.9	618.3	619.8	626.4	627.1
22.5°	598.5	602.9	605.1	613.9	613.2
25°	579.5	586.8	589.0	598.5	598.5
27.5°	561.1	569.2	573.6	581.7	582.4
30°	541.3	550.9	556.7	565.5	565.5
32.5°	519.3	530.3	538.4	547.9	550.1
35°	498.8	510.5	520.1	531.1	534.0
37.5°	476.8	490.0	501.0	513.5	515.7
40°	454.8	468.0	482.6	495.1	498.0
42.5°	430.6	447.4	462.8	476.8	481.2
45°	407.8	425.4	443.8	457.7	463.6
47.5°	383.6	403.4	424.0	439.4	443.8
50°	360.1	380.7	403.4	420.3	425.4
52.5°	335.2	357.2	382.9	400.5	407.1
55°	311.0	335.2	361.6	381.4	387.3
57.5°	287.5	312.5	341.1	360.9	367.5
60°	262.6	289.0	319.1	339.6	347.7
62.5°	239.1	266.3	298.5	319.1	326.4
65°	214.9	243.5	275.8	297.8	305.1
67.5°	190.7	220.8	253.1	277.3	283.1
70°	165.0	196.6	231.8	255.3	262.6
72.5°	141.6	173.1	209.8	234.0	241.3
75°	116.6	151.1	187.8	212.0	220.8
77.5°	95.4	129.8	166.5	192.2	198.8
80°	72.6	108.6	146.7	171.6	179.0
82.5°	52.8	89.5	128.4	153.3	160.6
85°	35.9	72.6	111.5	136.4	143.8
87.5°	22.0	58.7	96.1	121.0	128.4
90°	9.5	45.5	82.9	107.8	115.2
92.5°	8.8	40.3	77.0	101.2	107.8
95°	8.1	36.7	72.6	95.4	102.7
97.5°	7.3	33.7	68.2	90.2	97.6
100°	6.6	30.1	63.8	85.1	92.4
102.5°	5.9	26.4	59.4	80.0	87.3
105°	5.9	23.5	55.0	75.6	82.2
107.5°	5.1	20.5	50.6	70.4	77.0
110°	4.4	17.6	46.9	66.0	71.9



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	4.4	14.7	42.5	60.9	67.5
115°	3.7	12.5	38.9	56.5	62.3
117.5°	3.7	9.5	34.5	52.1	57.9
120°	2.9	6.6	30.8	47.7	52.8
122.5°	2.9	4.4	27.1	43.3	48.4
125°	2.2	2.2	23.5	38.9	44.0
127.5°	2.2	1.5	19.8	34.5	39.6
130°	2.2	1.5	16.1	30.1	34.5
132.5°	1.5	1.5	12.5	25.7	30.8
135°	1.5	0.7	8.8	22.0	25.7
137.5°	1.5	0.7	5.9	17.6	21.3
140°	0.7	0.7	2.9	13.9	17.6
142.5°	0.7	0.0	0.0	9.5	13.2
145°	0.7	0.0	0.0	5.9	8.8
147.5°	0.0	0.0	0.0	2.2	5.1
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)