

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: P1037230

Luminaire Tested: S123DS-B1000DB27-4F0-XX-W2A-D

Issue Date: 5/2/2025

Test Information

Test Method: LM-79-2019
Report Number: P1037230
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-B1000DB27-4F0-XX-W2A-D
Description: Define 3 Direct Surface with 2700K BioUP LEDs {m-DER=0.473} {m-EER=0.52}
Light Source: -
Ballast/Driver: -

Summary

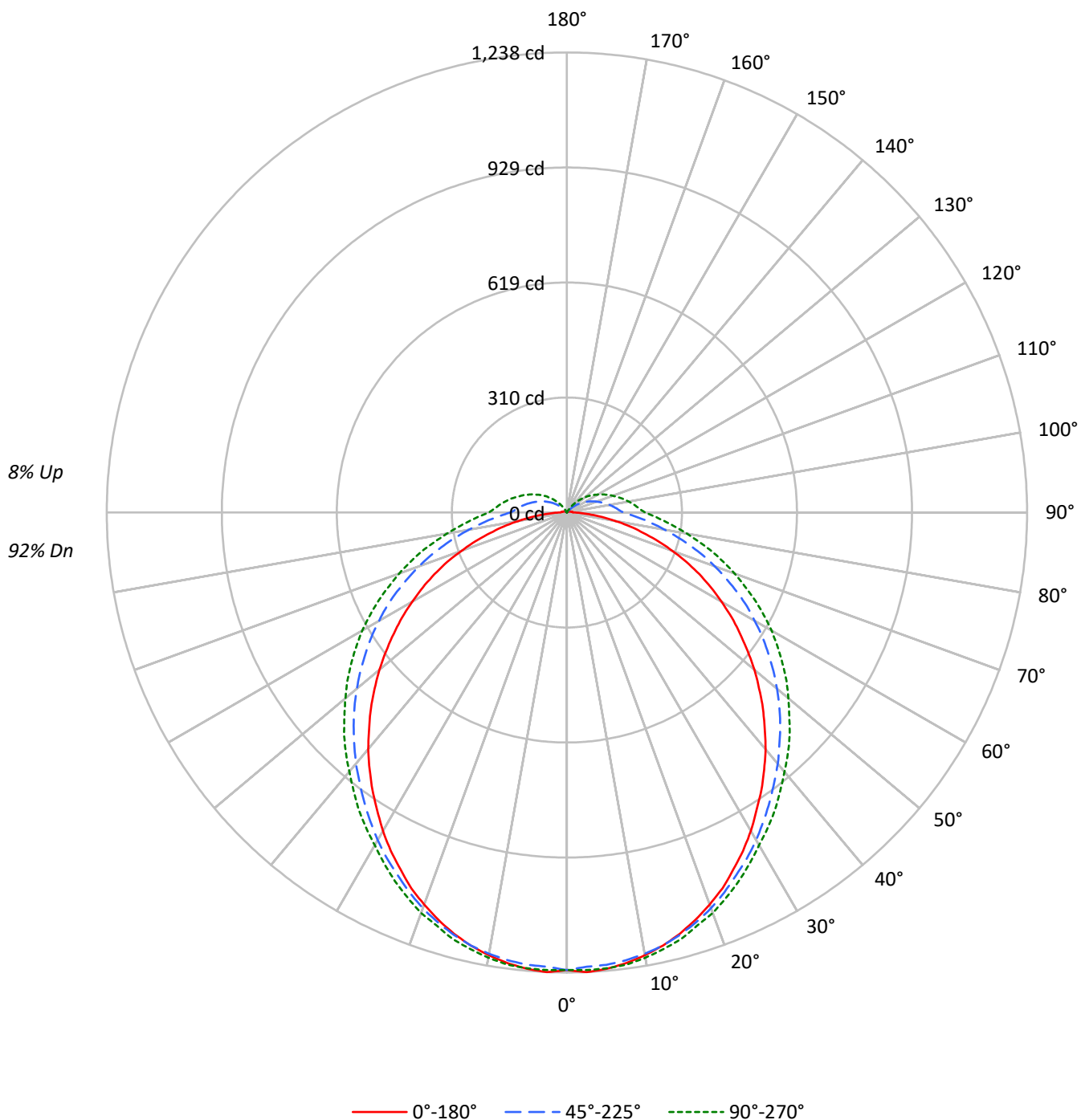
Lumens per Lamp: N/A
Luminaire Lumens: 4138.0 lumens
Efficiency: N/A
Efficacy: 88.4 lumens/watt
Spacing Criteria (0/90/45): 1.2 / 1.25 / 1.37
Luminous Opening: Rectangular (W 0.25' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 46.8
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°	13254	13254	13254
5°	13318	13203	13304
10°	13223	13179	13296
15°	13078	13108	13242
20°	12859	12982	13136
25°	12585	12791	12999
30°	12302	12653	12853
35°	11984	12495	12830
40°	11685	12400	12797
45°	11351	12353	12904
50°	11027	12353	13026
55°	10672	12408	13290
60°	10338	12559	13685
65°	10010	12844	14212
70°	9498	13338	15113
75°	8871	14282	16789
80°	8232	16625	20288
85°	8114	25182	32469

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°

Vertical Angle: 87.5°

Luminance: 57917 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	116.8	2.8
10°-20°	333.0	8.0
20°-30°	497.9	12.0
30°-40°	594.5	14.4
40°-50°	622.0	15.0
50°-60°	583.7	14.1
60°-70°	487.5	11.8
70°-80°	348.6	8.4
80°-90°	207.4	5.0
90°-100°	130.4	3.2
100°-110°	95.8	2.3
110°-120°	64.0	1.5
120°-130°	36.5	0.9
130°-140°	16.4	0.4
140°-150°	3.4	0.1
150°-160°	0.0	0.0
160°-170°	0.0	0.0
170°-180°	0.0	0.0
0°-30°	947.7	22.9
0°-40°	1542.2	37.3
0°-60°	2747.9	66.4
0°-90°	3791.5	91.6
90°-120°	290.1	7.0
90°-150°	346.4	8.4
90°-180°	346.0	8.4
0°-180°	4138.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1231	1231	1231	1231	1231	
5°	1233	1230	1222	1233	1231	117
15°	1174	1178	1176	1190	1188	331
25°	1060	1073	1077	1094	1094	488
35°	912	934	951	971	976	570
45°	746	778	812	837	848	575
55°	569	613	661	697	708	509
65°	393	445	504	544	558	388
75°	213	276	343	388	404	228
85°	66	133	204	250	263	68
90°	17	83	152	197	211	12
95°	15	67	133	174	188	12
105°	11	43	101	138	150	11
115°	7	23	71	103	114	7
125°	4	4	43	71	80	4
135°	3	1	16	40	47	2
145°	1	0	0	11	16	1
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°	1231.3	1231.3	1231.3	1231.3	1231.3
2.5°	1238.0	1233.9	1223.2	1233.9	1232.6
5°	1232.6	1229.9	1221.9	1232.6	1231.3
7.5°	1223.2	1223.2	1215.2	1228.6	1227.2
10°	1209.8	1212.5	1205.8	1219.2	1216.5
12.5°	1193.7	1197.7	1193.7	1205.8	1203.1
15°	1173.6	1177.6	1176.3	1189.7	1188.3
17.5°	1149.4	1157.5	1156.2	1168.2	1165.5
20°	1122.6	1130.7	1133.3	1145.4	1146.8
22.5°	1094.5	1102.5	1106.5	1122.6	1121.3
25°	1059.6	1073.0	1077.0	1094.5	1094.5
27.5°	1026.1	1040.8	1048.9	1063.6	1064.9
30°	989.8	1007.3	1018.0	1034.1	1034.1
32.5°	949.6	969.7	984.5	1001.9	1005.9
35°	912.0	933.5	950.9	971.1	976.4
37.5°	871.8	895.9	916.1	938.9	942.9
40°	831.6	855.7	882.5	905.3	910.7
42.5°	787.3	818.2	846.3	871.8	879.9
45°	745.7	777.9	811.5	836.9	847.7
47.5°	701.5	737.7	775.2	803.4	811.5
50°	658.5	696.1	737.7	768.5	777.9
52.5°	612.9	653.2	700.1	732.3	744.4
55°	568.7	612.9	661.2	697.4	708.2
57.5°	525.8	571.4	623.7	659.9	672.0
60°	480.2	528.4	583.4	621.0	635.7
62.5°	437.2	486.9	545.9	583.4	596.9
65°	393.0	445.3	504.3	544.5	558.0
67.5°	348.7	403.7	462.7	507.0	517.7
70°	301.8	359.5	423.8	466.8	480.2
72.5°	258.9	316.5	383.6	427.9	441.3
75°	213.3	276.3	343.4	387.6	403.7
77.5°	174.4	237.4	304.5	351.4	363.5
80°	132.8	198.5	268.2	313.9	327.3
82.5°	96.6	163.6	234.7	280.3	293.7
85°	65.7	132.8	203.9	249.5	262.9
87.5°	40.2	107.3	175.7	221.3	234.7
90°	17.4	83.2	151.6	197.2	210.6
92.5°	16.1	73.8	140.8	185.1	197.2
95°	14.8	67.1	132.8	174.4	187.8
97.5°	13.4	61.7	124.7	165.0	178.4
100°	12.1	55.0	116.7	155.6	169.0
102.5°	10.7	48.3	108.6	146.2	159.6
105°	10.7	42.9	100.6	138.1	150.2
107.5°	9.4	37.6	92.5	128.8	140.8
110°	8.0	32.2	85.8	120.7	131.4



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	8.0	26.8	77.8	111.3	123.4
115°	6.7	22.8	71.1	103.3	114.0
117.5°	6.7	17.4	63.0	95.2	106.0
120°	5.4	12.1	56.3	87.2	96.6
122.5°	5.4	8.0	49.6	79.1	88.5
125°	4.0	4.0	42.9	71.1	80.5
127.5°	4.0	2.7	36.2	63.0	72.4
130°	4.0	2.7	29.5	55.0	63.0
132.5°	2.7	2.7	22.8	46.9	56.3
135°	2.7	1.3	16.1	40.2	46.9
137.5°	2.7	1.3	10.7	32.2	38.9
140°	1.3	1.3	5.4	25.5	32.2
142.5°	1.3	0.0	0.0	17.4	24.1
145°	1.3	0.0	0.0	10.7	16.1
147.5°	0.0	0.0	0.0	4.0	9.4
150°	0.0	0.0	0.0	0.0	2.7
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)