

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: P1037238

Luminaire Tested: S123DS-B1000DB2750-4F0-XX-W2A-D_3000K

Issue Date: 5/2/2025

Test Information

Test Method: LM-79-2019
Report Number: P1037238
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-B1000DB2750-4F0-XX-W2A-D_3000K
Description: Define 3 Direct Surface with 3000K BioUP LEDs {m-DER=0.589} {m-EER=0.647}
Light Source: -
Ballast/Driver: -

Summary

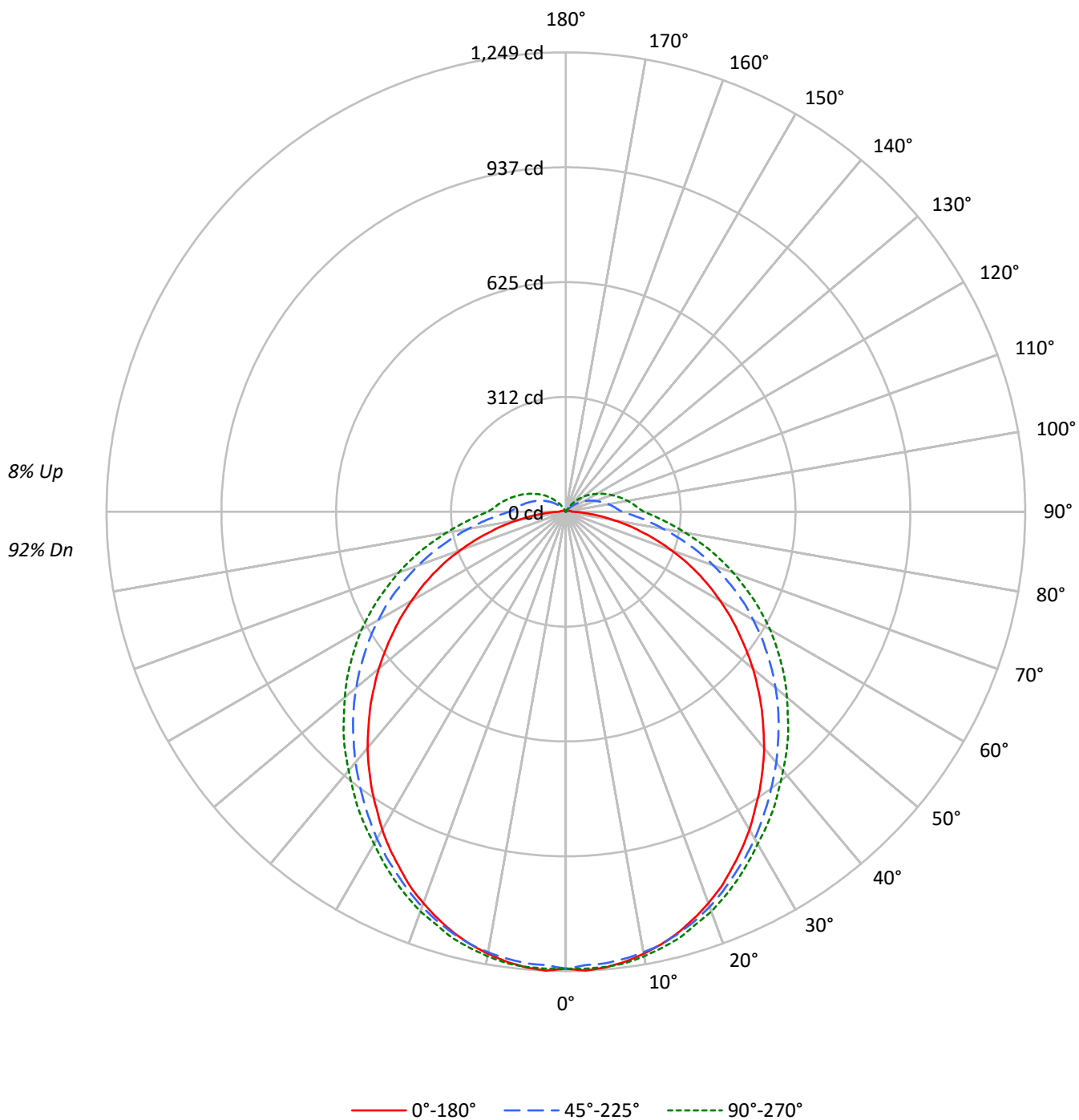
Lumens per Lamp: N/A
Luminaire Lumens: 4174.0 lumens
Efficiency: N/A
Efficacy: 89.2 lumens/watt
Spacing Criteria (0/90/45): 1.2 / 1.25 / 1.37
Luminous Opening: Rectangular (W 0.25' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 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°	13369	13369	13369
5°	13434	13317	13420
10°	13338	13294	13412
15°	13192	13222	13358
20°	12971	13095	13250
25°	12694	12903	13112
30°	12409	12763	12965
35°	12089	12604	12942
40°	11786	12508	12908
45°	11450	12460	13015
50°	11124	12460	13140
55°	10764	12517	13405
60°	10426	12669	13806
65°	10096	12956	14334
70°	9580	13454	15242
75°	8946	14402	16935
80°	8300	16774	20462
85°	8188	25392	32753

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°

Vertical Angle: 87.5°

Luminance: 58435 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	117.8	2.8
10°-20°	335.9	8.0
20°-30°	502.3	12.0
30°-40°	599.7	14.4
40°-50°	627.4	15.0
50°-60°	588.8	14.1
60°-70°	491.8	11.8
70°-80°	351.7	8.4
80°-90°	209.2	5.0
90°-100°	131.5	3.1
100°-110°	96.7	2.3
110°-120°	64.6	1.5
120°-130°	36.8	0.9
130°-140°	16.5	0.4
140°-150°	3.5	0.1
150°-160°	0.0	0.0
160°-170°	0.0	0.0
170°-180°	0.0	0.0
0°-30°	955.9	22.9
0°-40°	1555.6	37.3
0°-60°	2771.8	66.4
0°-90°	3824.5	91.6
90°-120°	292.7	7.0
90°-150°	349.5	8.4
90°-180°	350.0	8.4
0°-180°	4174.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1242	1242	1242	1242	1242	
5°	1243	1241	1232	1243	1242	118
15°	1184	1188	1186	1200	1199	333
25°	1069	1082	1086	1104	1104	493
35°	920	942	959	980	985	575
45°	752	785	818	844	855	580
55°	574	618	667	704	714	514
65°	396	449	509	549	563	392
75°	215	279	346	391	407	230
85°	66	134	206	252	265	68
90°	18	84	153	199	212	13
95°	15	68	134	176	189	12
105°	11	43	102	139	152	11
115°	7	23	72	104	115	7
125°	4	4	43	72	81	4
135°	3	1	16	41	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°	1242.0	1242.0	1242.0	1242.0	1242.0
2.5°	1248.7	1244.7	1233.9	1244.7	1243.3
5°	1243.3	1240.6	1232.5	1243.3	1242.0
7.5°	1233.9	1233.9	1225.7	1239.3	1237.9
10°	1220.3	1223.0	1216.3	1229.8	1227.1
12.5°	1204.1	1208.1	1204.1	1216.3	1213.6
15°	1183.8	1187.9	1186.5	1200.0	1198.7
17.5°	1159.4	1167.6	1166.2	1178.4	1175.7
20°	1132.4	1140.5	1143.2	1155.4	1156.7
22.5°	1104.0	1112.1	1116.2	1132.4	1131.0
25°	1068.8	1082.3	1086.4	1104.0	1104.0
27.5°	1035.0	1049.9	1058.0	1072.9	1074.2
30°	998.4	1016.0	1026.9	1043.1	1043.1
32.5°	957.9	978.2	993.0	1010.6	1014.7
35°	920.0	941.6	959.2	979.5	984.9
37.5°	879.4	903.7	924.0	947.0	951.1
40°	838.8	863.2	890.2	913.2	918.6
42.5°	794.2	825.3	853.7	879.4	887.5
45°	752.2	784.7	818.5	844.2	855.0
47.5°	707.6	744.1	782.0	810.4	818.5
50°	664.3	702.2	744.1	775.2	784.7
52.5°	618.3	658.9	706.2	738.7	750.9
55°	573.6	618.3	667.0	703.5	714.3
57.5°	530.3	576.3	629.1	665.6	677.8
60°	484.3	533.0	588.5	626.4	641.3
62.5°	441.0	491.1	550.6	588.5	602.0
65°	396.4	449.2	508.7	549.3	562.8
67.5°	351.8	407.2	466.8	511.4	522.2
70°	304.4	362.6	427.5	470.8	484.3
72.5°	261.1	319.3	386.9	431.6	445.1
75°	215.1	278.7	346.3	391.0	407.2
77.5°	175.9	239.5	307.1	354.5	366.6
80°	133.9	200.2	270.6	316.6	330.1
82.5°	97.4	165.1	236.8	282.8	296.3
85°	66.3	133.9	205.6	251.6	265.2
87.5°	40.6	108.2	177.2	223.2	236.8
90°	17.6	83.9	152.9	198.9	212.4
92.5°	16.2	74.4	142.1	186.7	198.9
95°	14.9	67.6	133.9	175.9	189.4
97.5°	13.5	62.2	125.8	166.4	179.9
100°	12.2	55.5	117.7	156.9	170.5
102.5°	10.8	48.7	109.6	147.5	161.0
105°	10.8	43.3	101.5	139.3	151.5
107.5°	9.5	37.9	93.4	129.9	142.1
110°	8.1	32.5	86.6	121.8	132.6



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	8.1	27.1	78.5	112.3	124.5
115°	6.8	23.0	71.7	104.2	115.0
117.5°	6.8	17.6	63.6	96.1	106.9
120°	5.4	12.2	56.8	87.9	97.4
122.5°	5.4	8.1	50.1	79.8	89.3
125°	4.1	4.1	43.3	71.7	81.2
127.5°	4.1	2.7	36.5	63.6	73.1
130°	4.1	2.7	29.8	55.5	63.6
132.5°	2.7	2.7	23.0	47.4	56.8
135°	2.7	1.4	16.2	40.6	47.4
137.5°	2.7	1.4	10.8	32.5	39.2
140°	1.4	1.4	5.4	25.7	32.5
142.5°	1.4	0.0	0.0	17.6	24.4
145°	1.4	0.0	0.0	10.8	16.2
147.5°	0.0	0.0	0.0	4.1	9.5
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)