

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: P1037241

Luminaire Tested: S123DS-B1000DB2750-4F0-XX-W2A-D_5000K

Issue Date: 5/2/2025

Test Information

Test Method: LM-79-2019
Report Number: P1037241
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_5000K
Description: Define 3 Direct Surface with 5000K BioUP LEDs {m-DER=1.015} {m-EER=1.115}
Light Source: -
Ballast/Driver: -

Summary

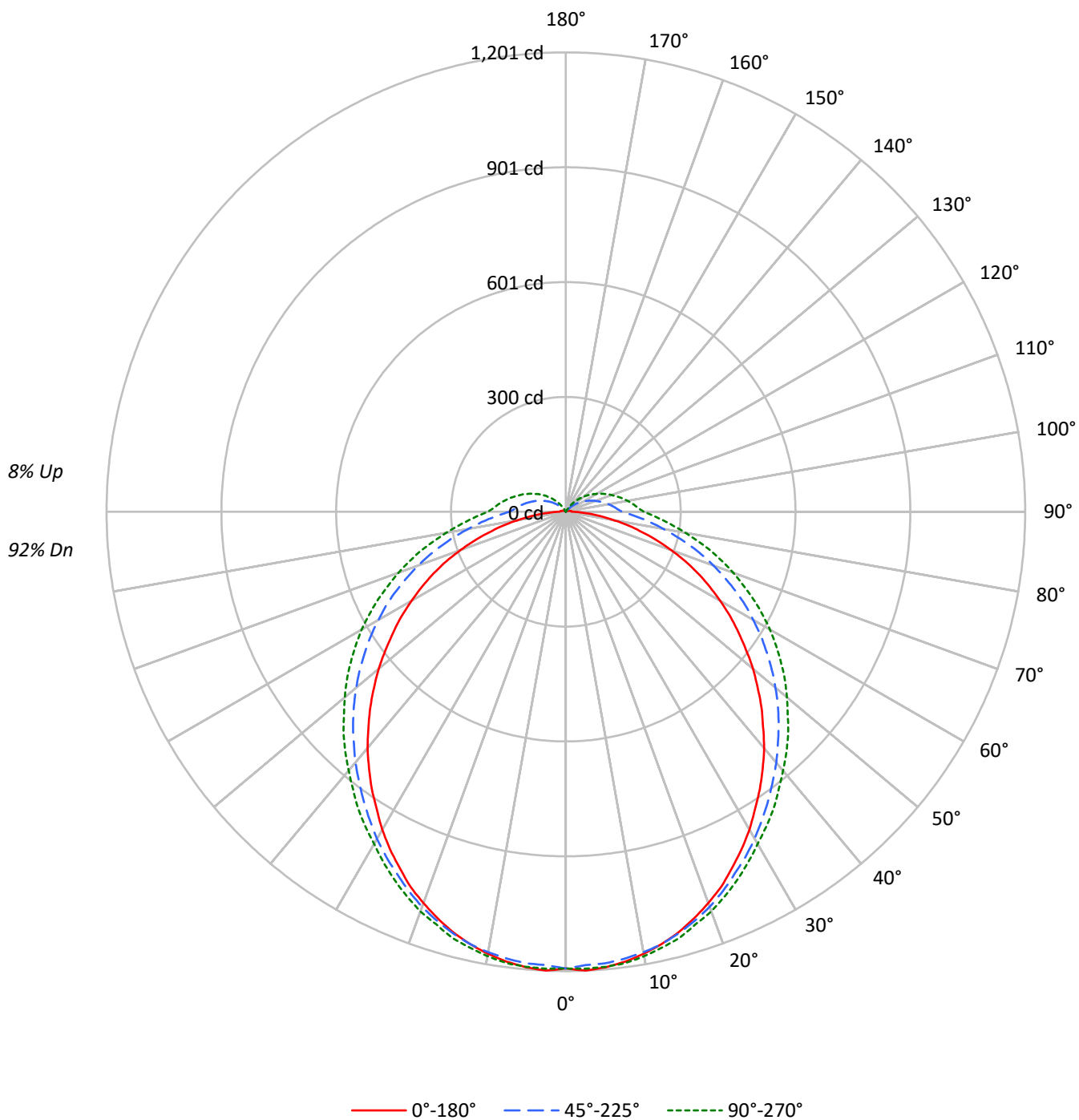
Lumens per Lamp: N/A
Luminaire Lumens: 4013.0 lumens
Efficiency: N/A
Efficacy: 85.7 lumens/watt
Spacing Criteria (0/90/45): 1.2 / 1.25 / 1.37
Luminous Opening: Rectangular (W 0.25' x L: 4' x H: 0')
CIE Type: Direct

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°	12853	12853	12853
5°	12916	12804	12902
10°	12824	12782	12895
15°	12683	12712	12842
20°	12471	12590	12739
25°	12204	12405	12606
30°	11931	12271	12465
35°	11623	12118	12443
40°	11332	12027	12410
45°	11009	11979	12514
50°	10695	11980	12633
55°	10350	12035	12889
60°	10026	12180	13272
65°	9706	12457	13782
70°	9212	12935	14656
75°	8601	13849	16282
80°	7984	16123	19675
85°	7867	24416	31481

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°

Vertical Angle: 87.5°

Luminance: 56165 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	113.3	2.8
10°-20°	322.9	8.0
20°-30°	482.9	12.0
30°-40°	576.5	14.4
40°-50°	603.2	15.0
50°-60°	566.1	14.1
60°-70°	472.8	11.8
70°-80°	338.1	8.4
80°-90°	201.2	5.0
90°-100°	126.4	3.2
100°-110°	92.9	2.3
110°-120°	62.0	1.5
120°-130°	35.4	0.9
130°-140°	15.9	0.4
140°-150°	3.3	0.1
150°-160°	0.0	0.0
160°-170°	0.0	0.0
170°-180°	0.0	0.0
0°-30°	919.1	22.9
0°-40°	1495.6	37.3
0°-60°	2664.9	66.4
0°-90°	3677.0	91.6
90°-120°	281.4	7.0
90°-150°	336.0	8.4
90°-180°	336.0	8.4
0°-180°	4013.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1194	1194	1194	1194	1194	
5°	1195	1193	1185	1195	1194	113
15°	1138	1142	1141	1154	1152	321
25°	1028	1041	1044	1061	1061	474
35°	884	905	922	942	947	553
45°	723	754	787	812	822	558
55°	552	594	641	676	687	494
65°	381	432	489	528	541	377
75°	207	268	333	376	392	221
85°	64	129	198	242	255	66
90°	17	81	147	191	204	12
95°	14	65	129	169	182	11
105°	10	42	98	134	146	10
115°	6	22	69	100	111	7
125°	4	4	42	69	78	4
135°	3	1	16	39	46	2
145°	1	0	0	10	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°	1194.1	1194.1	1194.1	1194.1	1194.1
2.5°	1200.6	1196.7	1186.3	1196.7	1195.4
5°	1195.4	1192.8	1185.0	1195.4	1194.1
7.5°	1186.3	1186.3	1178.5	1191.5	1190.2
10°	1173.3	1175.9	1169.4	1182.4	1179.8
12.5°	1157.6	1161.5	1157.6	1169.4	1166.8
15°	1138.1	1142.0	1140.7	1153.7	1152.4
17.5°	1114.7	1122.5	1121.2	1132.9	1130.3
20°	1088.7	1096.5	1099.1	1110.8	1112.1
22.5°	1061.4	1069.2	1073.1	1088.7	1087.4
25°	1027.6	1040.6	1044.5	1061.4	1061.4
27.5°	995.1	1009.4	1017.2	1031.5	1032.8
30°	959.9	976.8	987.3	1002.9	1002.9
32.5°	920.9	940.4	954.7	971.6	975.5
35°	884.5	905.3	922.2	941.7	946.9
37.5°	845.5	868.9	888.4	910.5	914.4
40°	806.5	829.9	855.9	878.0	883.2
42.5°	763.5	793.4	820.8	845.5	853.3
45°	723.2	754.4	786.9	811.7	822.1
47.5°	680.3	715.4	751.8	779.1	786.9
50°	638.7	675.1	715.4	745.3	754.4
52.5°	594.4	633.5	679.0	710.2	721.9
55°	551.5	594.4	641.3	676.4	686.8
57.5°	509.9	554.1	604.8	640.0	651.7
60°	465.7	512.5	565.8	602.2	616.5
62.5°	424.0	472.2	529.4	565.8	578.8
65°	381.1	431.8	489.1	528.1	541.1
67.5°	338.2	391.5	448.8	491.7	502.1
70°	292.7	348.6	411.0	452.7	465.7
72.5°	251.0	307.0	372.0	414.9	427.9
75°	206.8	267.9	333.0	375.9	391.5
77.5°	169.1	230.2	295.3	340.8	352.5
80°	128.8	192.5	260.1	304.4	317.4
82.5°	93.7	158.7	227.6	271.9	284.9
85°	63.7	128.8	197.7	241.9	254.9
87.5°	39.0	104.1	170.4	214.6	227.6
90°	16.9	80.6	147.0	191.2	204.2
92.5°	15.6	71.5	136.6	179.5	191.2
95°	14.3	65.0	128.8	169.1	182.1
97.5°	13.0	59.8	121.0	160.0	173.0
100°	11.7	53.3	113.2	150.9	163.9
102.5°	10.4	46.8	105.4	141.8	154.8
105°	10.4	41.6	97.6	134.0	145.7
107.5°	9.1	36.4	89.8	124.9	136.6
110°	7.8	31.2	83.2	117.1	127.5

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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	7.8	26.0	75.4	108.0	119.7
115°	6.5	22.1	68.9	100.2	110.6
117.5°	6.5	16.9	61.1	92.4	102.8
120°	5.2	11.7	54.6	84.5	93.7
122.5°	5.2	7.8	48.1	76.7	85.8
125°	3.9	3.9	41.6	68.9	78.0
127.5°	3.9	2.6	35.1	61.1	70.2
130°	3.9	2.6	28.6	53.3	61.1
132.5°	2.6	2.6	22.1	45.5	54.6
135°	2.6	1.3	15.6	39.0	45.5
137.5°	2.6	1.3	10.4	31.2	37.7
140°	1.3	1.3	5.2	24.7	31.2
142.5°	1.3	0.0	0.0	16.9	23.4
145°	1.3	0.0	0.0	10.4	15.6
147.5°	0.0	0.0	0.0	3.9	9.1
150°	0.0	0.0	0.0	0.0	2.6
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)