Cooper Lighting Solutions Photometric Lab
1121 Highway 74 South
Peachtree City, GA 30269

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: P1037240

Luminaire Tested: S123DS-B1000DB2750-4F0-XX-W2A-D_4000K

Issue Date: 5/2/2025

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Scaled Data Report

Test Information

Test Method:	LM-79-2019
Report Number:	P1037240
	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_4000K
Description:	Define 3 Direct Surface with 4000K BioUP LEDs {m-DER=0.865} {m-EER=0.951}
Light Source:	-
Ballast/Driver:	-

Summary

Lumens per Lamp:	N/A
Luminaire Lumens:	4150.0 lumens
Efficiency:	N/A
Efficacy:	88.7 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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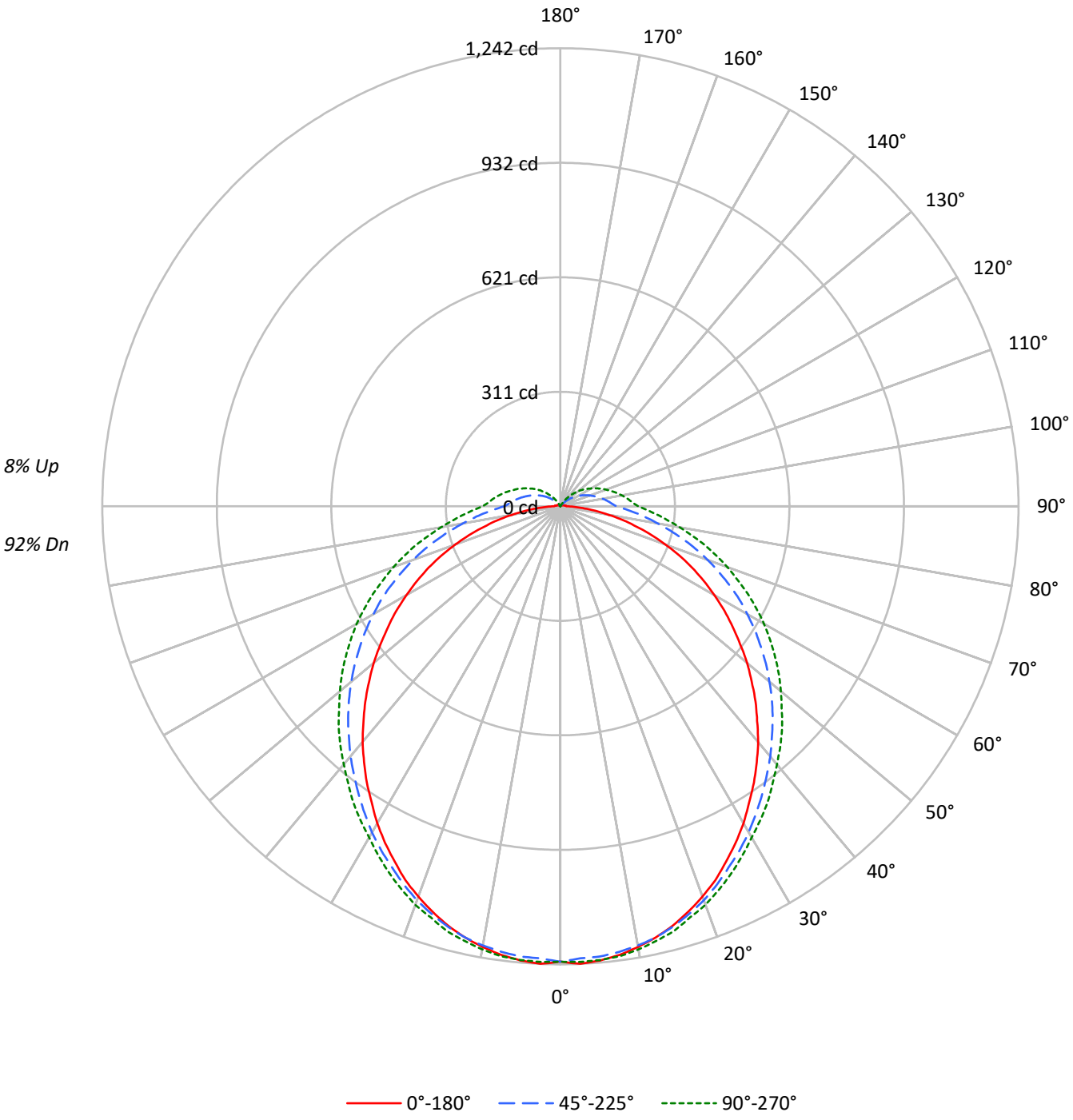
Luminous Intensity Polar Plot



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COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:

RF	20				20				20			20			20			20
RC	80				70				50			30			10			0
RW	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10	0
RCR																		
0	117	117	117	117	113	113	113	113	106	106	106	100	100	100	94	94	94	92
1	105	100	95	90	102	97	92	88	91	87	84	85	82	80	80	78	76	73
2	95	86	79	72	92	83	77	71	79	73	68	74	69	65	70	66	63	60
3	86	75	67	60	83	73	65	59	69	62	56	65	59	54	61	56	52	50
4	79	66	57	50	76	64	56	49	61	54	48	57	51	46	54	49	45	42
5	72	59	50	43	70	58	49	42	54	47	41	52	45	40	49	43	39	36
6	67	53	44	37	64	52	43	37	49	42	36	47	40	35	44	38	34	32
7	62	48	39	33	60	47	38	32	45	37	32	42	36	31	40	35	30	28
8	58	44	35	29	56	43	35	29	41	33	28	39	32	28	37	31	27	25
9	54	40	32	26	52	39	31	26	37	30	25	36	29	25	34	28	24	22
10	50	37	29	24	49	36	29	24	35	28	23	33	27	23	32	26	22	20

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	13291	13291	13291
5°	13357	13240	13342
10°	13261	13218	13335
15°	13116	13146	13281
20°	12897	13019	13174
25°	12621	12828	13036
30°	12338	12690	12890
35°	12019	12532	12868
40°	11719	12437	12833
45°	11385	12388	12941
50°	11061	12388	13065
55°	10702	12446	13328
60°	10368	12596	13726
65°	10038	12883	14253
70°	9526	13379	15157
75°	8896	14323	16839
80°	8257	16674	20344
85°	8139	25256	32555

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°
Vertical Angle: 87.5°
Luminance: 58089 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	117.1	2.8
10°-20°	333.9	8.0
20°-30°	499.4	12.0
30°-40°	596.2	14.4
40°-50°	623.8	15.0
50°-60°	585.4	14.1
60°-70°	489.0	11.8
70°-80°	349.6	8.4
80°-90°	208.0	5.0
90°-100°	130.7	3.2
100°-110°	96.1	2.3
110°-120°	64.2	1.5
120°-130°	36.6	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°	950.4	22.9
0°-40°	1546.6	37.3
0°-60°	2755.9	66.4
0°-90°	3802.5	91.6
90°-120°	291.0	7.0
90°-150°	347.5	8.4
90°-180°	347.0	8.4
0°-180°	4150.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1235	1235	1235	1235	1235	
5°	1236	1234	1225	1236	1235	117
15°	1177	1181	1180	1193	1192	332
25°	1063	1076	1080	1098	1098	490
35°	915	936	954	974	979	572
45°	748	780	814	839	850	577
55°	570	615	663	700	710	511
65°	394	447	506	546	560	390
75°	214	277	344	389	405	228
85°	66	133	204	250	264	68
90°	18	83	152	198	211	13
95°	15	67	133	175	188	12
105°	11	43	101	138	151	11
115°	7	23	71	104	114	7
125°	4	4	43	71	81	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	

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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	*1234.8*	1234.8	1234.8	1234.8	1234.8
2.5°	*1241.6*	*1237.5*	*1226.8*	*1237.5*	*1236.2*
5°	*1236.2*	1233.5	1225.4	1236.2	1234.8
7.5°	*1226.8*	1226.8	1218.7	1232.1	1230.8
10°	*1213.3*	1216.0	1209.3	1222.7	1220.0
12.5°	*1197.2*	1201.2	1197.2	1209.3	1206.6
15°	*1177.0*	1181.0	1179.7	1193.1	1191.8
17.5°	*1152.8*	1160.8	1159.5	1171.6	1168.9
20°	*1125.9*	1133.9	1136.6	1148.7	1150.1
22.5°	*1097.6*	1105.7	1109.7	1125.9	1124.5
25°	*1062.7*	1076.1	1080.1	1097.6	1097.6
27.5°	*1029.0*	1043.8	1051.9	1066.7	1068.0
30°	*992.7*	1010.2	1021.0	1037.1	1037.1
32.5°	*952.4*	972.5	987.3	1004.8	1008.8
35°	*914.7*	936.2	953.7	973.9	979.3
37.5°	*874.3*	898.5	918.7	941.6	945.6
40°	*834.0*	858.2	885.1	908.0	913.3
42.5°	*789.6*	820.5	848.8	874.3	882.4
45°	*747.9*	780.2	813.8	839.4	850.1
47.5°	*703.5*	739.8	777.5	805.7	813.8
50°	*660.5*	698.1	739.8	770.8	780.2
52.5°	*614.7*	655.1	702.2	734.4	746.5
55°	*570.3*	614.7	663.2	699.5	710.2
57.5°	*527.3*	573.0	625.5	661.8	673.9
60°	*481.6*	530.0	585.1	622.8	637.6
62.5°	*438.5*	488.3	547.5	585.1	598.6
65°	*394.1*	446.6	505.8	546.1	559.6
67.5°	*349.7*	404.9	464.1	508.5	519.2
70°	*302.7*	360.5	425.1	468.1	481.6
72.5°	*259.6*	317.5	384.7	429.1	442.5
75°	*213.9*	277.1	344.4	388.7	404.9
77.5°	*174.9*	238.1	305.3	352.4	364.5
80°	*133.2*	199.1	269.0	314.8	328.2
82.5°	*96.8*	164.1	235.4	281.1	294.6
85°	*65.9*	133.2	204.5	250.2	263.6
87.5°	*40.4*	107.6	176.2	221.9	235.4
90°	*17.5*	83.4	152.0	197.7	211.2
92.5°	*16.1*	74.0	141.2	185.6	197.7
95°	*14.8*	67.3	133.2	174.9	188.3
97.5°	*13.5*	61.9	125.1	165.5	178.9
100°	*12.1*	55.2	117.0	156.0	169.5
102.5°	*10.8*	48.4	109.0	146.6	160.1
105°	*10.8*	43.0	100.9	138.5	150.7
107.5°	*9.4*	37.7	92.8	129.1	141.2
110°	*8.1*	32.3	86.1	121.1	131.8

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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	*8.1*	26.9	78.0	111.6	123.8
115°	*6.7*	22.9	71.3	103.6	114.3
117.5°	*6.7*	17.5	63.2	95.5	106.3
120°	*5.4*	12.1	56.5	87.4	96.8
122.5°	*5.4*	8.1	49.8	79.4	88.8
125°	*4.0*	4.0	43.0	71.3	80.7
127.5°	*4.0*	2.7	36.3	63.2	72.6
130°	*4.0*	2.7	29.6	55.2	63.2
132.5°	*2.7*	2.7	22.9	47.1	56.5
135°	*2.7*	1.3	16.1	40.4	47.1
137.5°	*2.7*	1.3	10.8	32.3	39.0
140°	*1.3*	1.3	5.4	25.6	32.3
142.5°	*1.3*	0.0	0.0	17.5	24.2
145°	*1.3*	0.0	0.0	10.8	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)