

Scaled data based on original data using

LM-41-14 Approved Method for Photometric Testing Of Indoor Fluorescent Luminaires

Test Report Prepared for

Cooper Lighting Solutions

(formerly Eaton)

Brand: METALUX

Report Number: P306976

Luminaire Tested: **4ST2L4050R**

Issue Date: 3/3/2020



Test Information

Test Method: LM-41-14
Report Number: P306976
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-1804-713-2)
Test Lab: INNOVATION CENTER(G2)
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: 4ST2L4050R
Description: 4' LED STRIP DUAL LENS UNV 5000K NO-DIM
Light Source: -
Ballast/Driver: -

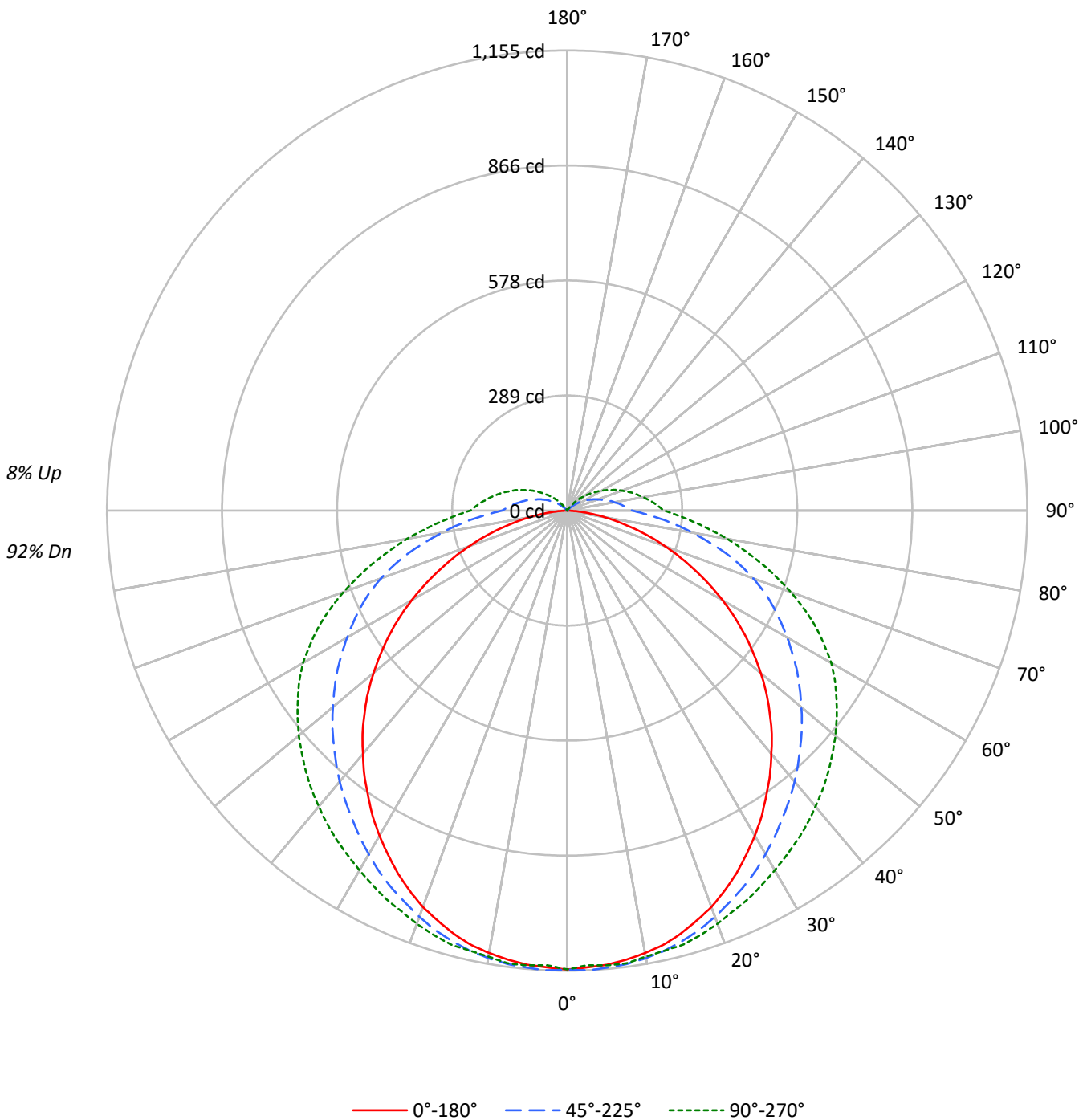
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 4261.0 lumens
Efficiency: N/A
Efficacy: 111.2 lumens/watt
Spacing Criteria (0/90/45): 1.22 / 1.35 / 1.43
Luminous Opening: Rectangular w/ Sides (W: 0.3' x L: 4' x H: 0.62')
CIE Type: Direct

Input Watts (W): 38.33
Input Voltage (V): NR
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: 25 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	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	107	107	107	100	100	100	95	95	95	92
1	105	99	94	90	101	96	91	87	90	86	83	85	82	79	80	78	75	73
2	94	85	78	71	91	83	76	70	78	72	67	73	68	64	69	65	61	59
3	86	74	65	58	82	72	64	57	68	61	55	64	58	53	60	55	51	48
4	78	65	56	49	75	63	55	48	60	52	46	56	50	45	53	48	43	41
5	71	58	48	41	69	56	47	41	53	45	40	50	44	38	48	42	37	35
6	66	52	43	36	63	51	42	35	48	40	34	45	39	33	43	37	33	30
7	61	47	38	31	59	46	37	31	43	36	30	41	34	29	39	33	29	27
8	57	43	34	28	55	42	33	28	40	32	27	38	31	26	36	30	26	24
9	53	39	31	25	51	38	30	25	36	29	24	35	28	24	33	27	23	21
10	50	36	28	22	48	35	27	22	34	27	22	32	26	21	31	25	21	19

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	10439	10439	10439
5°	10271	9192	8806
10°	10099	8188	7631
15°	9905	7346	6765
20°	9665	6614	6026
25°	9370	5981	5428
30°	9044	5419	4924
35°	8694	4917	4512
40°	8342	4488	4148
45°	7977	4088	3828
50°	7539	3726	3532
55°	7044	3391	3255
60°	6429	3068	2988
65°	5690	2766	2676
70°	4849	2442	2333
75°	3816	2069	1980
80°	2618	1654	1646
85°	1109	1270	1316



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	109.2	2.6
10°-20°	314.4	7.4
20°-30°	479.3	11.2
30°-40°	588.2	13.8
40°-50°	635.6	14.9
50°-60°	619.4	14.5
60°-70°	540.2	12.7
70°-80°	400.1	9.4
80°-90°	234.1	5.5
90°-100°	138.5	3.3
100°-110°	97.7	2.3
110°-120°	61.0	1.4
120°-130°	31.4	0.7
130°-140°	10.9	0.3
140°-150°	1.1	0.0
150°-160°	0.0	0.0
160°-170°	0.0	0.0
170°-180°	0.0	0.0
0°-30°	902.9	21.2
0°-40°	1491.1	35.0
0°-60°	2746.1	64.4
0°-90°	3920.4	92.0
90°-120°	297.2	7.0
90°-150°	340.6	8.0
90°-180°	341.0	8.0
0°-180°	4261.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1152	1152	1152	1152	1152	
5°	1144	1157	1152	1148	1146	109
15°	1100	1113	1118	1124	1128	310
25°	1005	1020	1044	1064	1076	463
35°	872	892	942	987	1009	546
45°	720	749	829	896	927	555
55°	545	593	705	790	825	487
65°	354	438	571	656	688	351
75°	172	289	412	477	501	184
85°	30	139	236	293	317	38
90°	2	76	163	221	243	2
95°	0	59	141	197	219	0
105°	0	32	102	152	171	0
115°	0	9	65	108	122	0
125°	0	0	33	67	78	0
135°	0	0	4	30	39	0
145°	0	0	0	0	6	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°	5°	10°	15°	20°	22.5°	25°	30°	35°	40°	45°
0°	1151.6	1151.6	1151.6	1151.6	1151.6	1151.6	1151.6	1151.6	1151.6	1151.6	1151.6
2.5°	1147.9	1146.0	1162.7	1151.6	1153.4	1162.7	1155.3	1151.6	1155.3	1153.4	1155.3
5°	1144.2	1140.5	1157.2	1147.9	1149.7	1157.2	1149.7	1147.9	1149.7	1149.7	1151.6
7.5°	1136.8	1133.0	1149.7	1140.5	1142.3	1149.7	1142.3	1140.5	1144.2	1142.3	1147.9
10°	1127.5	1123.8	1138.6	1131.2	1133.0	1140.5	1133.0	1133.0	1134.9	1136.8	1140.5
12.5°	1116.4	1110.8	1125.6	1120.1	1120.1	1129.3	1121.9	1121.9	1123.8	1125.6	1131.2
15°	1099.7	1094.1	1107.1	1103.4	1103.4	1112.7	1105.2	1107.1	1108.9	1112.7	1118.2
17.5°	1079.3	1073.7	1084.8	1083.0	1083.0	1092.3	1084.8	1088.5	1090.4	1094.1	1103.4
20°	1058.9	1053.3	1062.6	1060.7	1062.6	1071.9	1064.4	1068.1	1071.9	1077.4	1084.8
22.5°	1032.9	1027.3	1036.6	1036.6	1036.6	1045.9	1040.3	1045.9	1049.6	1055.2	1064.4
25°	1005.1	1001.4	1006.9	1008.8	1010.7	1019.9	1014.4	1019.9	1025.5	1032.9	1044.0
27.5°	973.6	969.9	973.6	979.1	981.0	990.3	984.7	994.0	997.7	1006.9	1021.8
30°	942.0	938.3	942.0	947.6	951.3	958.7	955.0	964.3	969.9	981.0	995.8
32.5°	908.7	906.8	908.7	916.1	919.8	927.2	925.4	936.5	942.0	955.0	969.9
35°	871.6	869.7	871.6	880.8	886.4	892.0	890.1	903.1	912.4	925.4	942.0
37.5°	836.3	834.5	836.3	847.5	851.2	860.5	858.6	871.6	882.7	897.5	916.1
40°	797.4	797.4	797.4	810.4	815.9	825.2	823.4	840.1	851.2	866.0	888.3
42.5°	760.3	758.5	758.5	771.4	780.7	788.1	788.1	804.8	819.7	836.3	858.6
45°	719.5	719.5	717.7	732.5	741.8	749.2	751.0	769.6	786.3	804.8	828.9
47.5°	678.7	676.9	676.9	693.6	702.8	712.1	714.0	736.2	752.9	773.3	799.3
50°	634.2	634.2	634.2	652.8	663.9	671.3	676.9	699.1	717.7	739.9	767.7
52.5°	589.7	591.6	591.6	610.1	624.9	632.4	639.8	663.9	684.3	706.5	736.2
55°	545.2	547.1	548.9	569.3	584.1	593.4	602.7	626.8	650.9	673.2	704.7
57.5°	498.8	502.5	504.4	526.7	545.2	554.5	563.7	591.6	615.7	639.8	671.3
60°	450.6	456.2	461.8	484.0	504.4	515.5	526.7	554.5	580.4	608.2	637.9
62.5°	402.4	409.8	415.4	441.4	463.6	476.6	489.6	517.4	545.2	573.0	604.5
65°	354.2	361.6	369.0	398.7	426.5	437.6	452.5	482.1	510.0	539.6	571.2
67.5°	307.8	317.1	328.2	357.9	385.7	398.7	415.4	446.9	476.6	504.4	535.9
70°	261.5	270.7	285.6	317.1	346.8	359.8	374.6	411.7	441.4	469.2	497.0
72.5°	217.0	228.1	246.6	280.0	311.5	324.5	339.4	372.7	404.3	430.2	456.2
75°	172.5	185.4	207.7	241.1	274.5	289.3	306.0	335.6	361.6	385.7	411.7
77.5°	131.7	144.6	172.5	207.7	239.2	254.1	268.9	298.6	322.7	343.1	363.5
80°	94.6	107.6	137.2	172.5	204.0	217.0	229.9	255.9	278.2	298.6	319.0
82.5°	59.3	76.0	105.7	139.1	166.9	178.0	191.0	215.1	237.4	255.9	276.3
85°	29.7	48.2	76.0	103.8	128.0	139.1	152.1	174.3	196.6	215.1	235.5
87.5°	9.3	26.0	46.4	72.3	94.6	103.8	115.0	137.2	157.6	176.2	194.7
90°	1.9	9.3	26.0	46.4	66.8	76.0	87.2	107.6	126.1	144.6	163.2
92.5°	0.0	5.6	20.4	38.9	57.5	66.8	77.9	96.4	116.8	133.5	152.1
95°	0.0	1.9	14.8	31.5	50.1	59.3	68.6	87.2	107.6	124.2	140.9
97.5°	0.0	0.0	9.3	26.0	42.7	51.9	61.2	79.7	96.4	115.0	131.7
100°	0.0	0.0	5.6	20.4	37.1	44.5	53.8	70.5	89.0	103.8	120.5
102.5°	0.0	0.0	3.7	14.8	29.7	37.1	46.4	63.1	79.7	94.6	111.3
105°	0.0	0.0	1.9	11.1	24.1	31.5	38.9	55.6	72.3	87.2	102.0
107.5°	0.0	0.0	0.0	5.6	18.5	26.0	33.4	48.2	63.1	77.9	90.9
110°	0.0	0.0	0.0	1.9	13.0	20.4	27.8	40.8	55.6	68.6	81.6



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CANDELA DISTRIBUTION (continued):

	0°	5°	10°	15°	20°	22.5°	25°	30°	35°	40°	45°
112.5°	0.0	0.0	0.0	0.0	9.3	14.8	20.4	35.2	48.2	61.2	74.2
115°	0.0	0.0	0.0	0.0	3.7	9.3	14.8	27.8	40.8	53.8	64.9
117.5°	0.0	0.0	0.0	0.0	1.9	5.6	9.3	22.3	33.4	44.5	57.5
120°	0.0	0.0	0.0	0.0	0.0	1.9	5.6	14.8	27.8	37.1	48.2
122.5°	0.0	0.0	0.0	0.0	0.0	0.0	1.9	9.3	20.4	31.5	40.8
125°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5.6	14.8	24.1	33.4
127.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.9	7.4	16.7	26.0
130°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.9	9.3	18.5
132.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.7	11.1
135°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.7
137.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
140°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
142.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
145°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
147.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
150°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
152.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
155°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
157.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
160°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
162.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
165°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
167.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
170°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
172.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
175°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
177.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
180°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0



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CANDELA DISTRIBUTION (continued):

	50°	55°	60°	65°	67.5°	70°	75°	80°	85°	90°
0°	1151.6	1151.6	1151.6	1151.6	1151.6	1151.6	1151.6	1151.6	1151.6	1151.6
2.5°	1157.2	1155.3	1153.4	1146.0	1147.9	1140.5	1133.0	1138.6	1147.9	1142.3
5°	1153.4	1151.6	1151.6	1146.0	1147.9	1140.5	1133.0	1140.5	1151.6	1146.0
7.5°	1149.7	1147.9	1147.9	1144.2	1146.0	1140.5	1133.0	1140.5	1151.6	1146.0
10°	1142.3	1142.3	1142.3	1136.8	1138.6	1133.0	1125.6	1133.0	1142.3	1136.8
12.5°	1133.0	1133.0	1134.9	1129.3	1133.0	1125.6	1120.1	1127.5	1138.6	1131.2
15°	1121.9	1121.9	1125.6	1121.9	1123.8	1120.1	1112.7	1121.9	1133.0	1127.5
17.5°	1105.2	1108.9	1112.7	1110.8	1112.7	1108.9	1103.4	1110.8	1123.8	1116.4
20°	1088.5	1094.1	1097.8	1096.0	1097.8	1094.1	1090.4	1097.8	1110.8	1103.4
22.5°	1068.1	1073.7	1079.3	1079.3	1081.1	1079.3	1075.6	1083.0	1096.0	1088.5
25°	1047.7	1055.2	1062.6	1062.6	1064.4	1062.6	1060.7	1070.0	1083.0	1075.6
27.5°	1025.5	1034.8	1042.2	1044.0	1045.9	1045.9	1045.9	1053.3	1066.3	1058.9
30°	1001.4	1010.7	1021.8	1023.6	1027.3	1027.3	1027.3	1036.6	1049.6	1042.2
32.5°	977.3	988.4	999.5	1005.1	1006.9	1008.8	1010.7	1019.9	1032.9	1025.5
35°	949.5	962.4	977.3	981.0	986.6	988.4	992.1	999.5	1014.4	1008.8
37.5°	923.5	940.2	955.0	962.4	966.2	969.9	975.4	981.0	995.8	990.3
40°	897.5	914.2	930.9	940.2	943.9	949.5	953.2	962.4	975.4	969.9
42.5°	869.7	888.3	906.8	916.1	921.6	925.4	932.8	940.2	953.2	949.5
45°	841.9	862.3	880.8	892.0	895.7	903.1	910.5	917.9	930.9	927.2
47.5°	812.2	834.5	853.0	866.0	871.6	879.0	886.4	893.8	906.8	903.1
50°	780.7	804.8	825.2	838.2	843.8	853.0	862.3	869.7	880.8	879.0
52.5°	752.9	775.1	797.4	812.2	817.8	827.1	836.3	843.8	854.9	853.0
55°	719.5	745.5	767.7	782.6	790.0	799.3	810.4	817.8	828.9	825.2
57.5°	689.8	714.0	738.1	752.9	760.3	769.6	782.6	790.0	797.4	797.4
60°	656.5	682.4	706.5	723.2	728.8	739.9	751.0	756.6	765.9	765.9
62.5°	623.1	649.0	673.2	688.0	693.6	704.7	715.8	719.5	728.8	726.9
65°	589.7	613.8	636.1	650.9	656.5	665.7	676.9	680.6	688.0	688.0
67.5°	552.6	576.7	597.1	610.1	613.8	624.9	634.2	636.1	643.5	643.5
70°	513.7	534.1	552.6	565.6	569.3	578.6	587.9	589.7	597.1	597.1
72.5°	471.0	489.6	506.3	519.2	524.8	532.2	539.6	541.5	547.1	548.9
75°	426.5	443.2	459.9	472.9	476.6	484.0	491.4	493.3	498.8	500.7
77.5°	378.3	396.8	413.5	426.5	430.2	437.6	445.1	446.9	450.6	452.5
80°	333.8	348.6	365.3	376.4	380.2	387.6	396.8	400.6	404.3	408.0
82.5°	291.1	306.0	320.8	331.9	335.6	343.1	350.5	354.2	357.9	359.8
85°	250.3	265.2	278.2	289.3	293.0	300.4	307.8	311.5	315.3	317.1
87.5°	209.5	224.4	237.4	250.3	254.1	261.5	268.9	274.5	274.5	278.2
90°	178.0	191.0	205.8	217.0	220.7	226.2	233.7	239.2	241.1	242.9
92.5°	165.0	179.9	192.9	204.0	209.5	215.1	222.5	226.2	228.1	229.9
95°	155.8	168.8	181.7	192.9	196.6	204.0	209.5	215.1	217.0	218.8
97.5°	144.6	157.6	170.6	181.7	185.4	191.0	198.4	202.1	204.0	205.8
100°	135.4	148.4	159.5	170.6	174.3	179.9	187.3	191.0	192.9	194.7
102.5°	124.2	137.2	148.4	159.5	163.2	168.8	174.3	179.9	181.7	181.7
105°	115.0	126.1	137.2	148.4	152.1	155.8	163.2	166.9	168.8	170.6
107.5°	103.8	116.8	126.1	137.2	140.9	144.6	150.2	155.8	157.6	157.6
110°	94.6	105.7	115.0	124.2	129.8	133.5	139.1	142.8	144.6	146.5



TEST NUMBER: P306976

CATALOG NUMBER: 4ST2L4050R

CANDELA DISTRIBUTION (continued):

	50°	55°	60°	65°	67.5°	70°	75°	80°	85°	90°
112.5°	85.3	96.4	105.7	115.0	118.7	122.4	128.0	131.7	133.5	135.4
115°	76.0	87.2	94.6	103.8	107.6	111.3	116.8	120.5	122.4	122.4
117.5°	66.8	76.0	85.3	92.7	96.4	100.1	105.7	109.4	111.3	111.3
120°	59.3	66.8	76.0	83.4	85.3	89.0	94.6	98.3	100.1	100.1
122.5°	50.1	59.3	64.9	72.3	76.0	79.7	83.4	87.2	89.0	89.0
125°	40.8	50.1	55.6	63.1	66.8	68.6	72.3	76.0	77.9	77.9
127.5°	33.4	40.8	48.2	53.8	55.6	59.3	63.1	66.8	66.8	66.8
130°	26.0	33.4	38.9	44.5	46.4	50.1	53.8	55.6	57.5	57.5
132.5°	18.5	24.1	29.7	35.2	38.9	40.8	44.5	46.4	48.2	48.2
135°	11.1	16.7	22.3	27.8	29.7	31.5	35.2	37.1	37.1	38.9
137.5°	3.7	9.3	14.8	18.5	20.4	22.3	26.0	27.8	29.7	29.7
140°	0.0	3.7	7.4	11.1	13.0	14.8	16.7	18.5	20.4	20.4
142.5°	0.0	0.0	1.9	3.7	5.6	7.4	9.3	11.1	11.1	13.0
145°	0.0	0.0	0.0	0.0	0.0	1.9	1.9	3.7	3.7	5.6
147.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
150°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
152.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
155°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
157.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
160°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
162.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
165°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
167.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
170°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
172.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
175°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
177.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
180°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)