

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: HALO

Report Number: P300539

Luminaire Tested: **ML4D09_27D2WE - TIR50AWW25 - TL46S6GMWBB**

Issue Date: 3/3/2020

Test Information

Test Method: LM-41-14
Report Number: P300539
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G1-1902-156-55)
Test Lab: INNOVATION CENTER(G1)
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: HALO
Catalog Number: ML4D09_27D2WE - TIR50AWW25 - TL46S6GMWBB
Description: ML4 2700K, 900LM DIM-TO-WARM, 25 DEG ASYMM WW, WITH SQUARE ASYMM WW, LINEAR SPREAD LENS, MATTE WHITE FLANGE, WHITE LENS FRAME
Light Source: (1) HIGH LUMEN LED 90CRI / 2700K CCT
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 305.0 lumens
Efficiency: N/A
Efficacy: 27.2 lumens/watt
Spacing Criteria (0/90/45): 1.36 / 0.78 / 1.12
Luminous Opening: Rectangular (W 0.19' x L: 0.19' x H: 0')
CIE Type: Direct

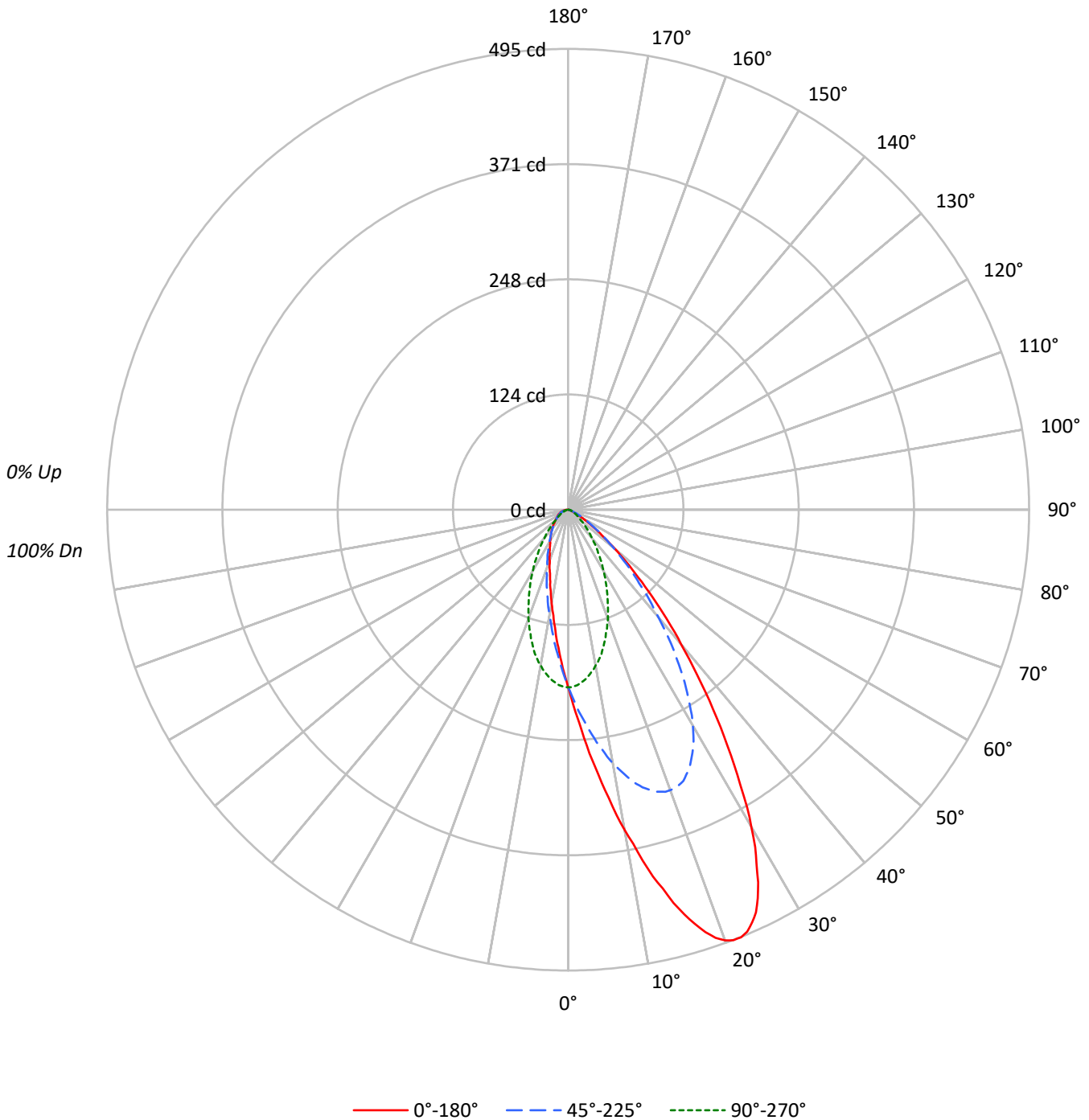
Input Watts (W): 11.2
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	50	30	10	50	30	10	0		
RCR																										
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100					100			
1	112	109	106	103	109	106	104	101	102	100	98	99	97	95	95	94	92	90					90			
2	105	99	94	90	103	97	93	89	94	90	87	91	88	85	88	85	83	81					81			
3	98	90	84	79	96	89	83	79	86	81	77	84	80	76	81	78	75	73					73			
4	92	83	76	71	90	81	75	70	79	74	70	77	72	69	75	71	68	66					66			
5	86	76	69	64	84	75	68	63	73	67	63	71	66	62	70	65	62	60					60			
6	81	70	63	58	79	69	62	58	68	62	57	66	61	57	65	60	56	55					55			
7	76	65	58	53	74	64	57	53	63	57	52	61	56	52	60	55	52	50					50			
8	71	60	53	48	70	60	53	48	58	52	48	57	52	48	56	51	48	46					46			
9	67	56	49	45	66	56	49	44	55	48	44	54	48	44	53	48	44	42					42			
10	64	52	46	41	63	52	45	41	51	45	41	50	45	41	49	44	41	39					39			

AVERAGE LUMINANCE (cd/sqm):

	0°	90°	180°
0°	58387	58387	58387
5°	80708	56766	43274
10°	108658	52790	31680
15°	138645	47166	23741
20°	160403	40663	18865
25°	161244	33411	15844
30°	139082	26834	13753
35°	106748	20894	11961
40°	75420	15947	10791
45°	50574	12124	9526
50°	31390	8574	8574
55°	18683	6939	8007
60°	9798	5511	7961
65°	4347	5071	7969
70°	1790	4476	8057
75°	1183	3549	8281
80°	1763	3526	8816
85°	3513	3513	10539



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	18.5	6.1
10°-20°	56.5	18.5
20°-30°	81.5	26.7
30°-40°	71.1	23.3
40°-50°	42.7	14.0
50°-60°	20.3	6.6
60°-70°	8.9	2.9
70°-80°	4.1	1.3
80°-90°	1.5	0.5
90°-100°	0.0	0.0
100°-110°	0.0	0.0
110°-120°	0.0	0.0
120°-130°	0.0	0.0
130°-140°	0.0	0.0
140°-150°	0.0	0.0
150°-160°	0.0	0.0
160°-170°	0.0	0.0
170°-180°	0.0	0.0
0°-30°	156.5	51.3
0°-40°	227.6	74.6
0°-60°	290.6	95.3
0°-90°	305.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	305.0	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	191	191	191	191	191	
5°	263	234	185	150	141	28
15°	437	309	149	88	75	125
25°	477	308	99	52	47	214
35°	286	211	56	32	32	178
45°	117	102	28	21	22	92
55°	35	37	13	14	15	33
65°	6	10	7	10	11	7
75°	1	2	3	6	7	1
85°	1	1	1	2	3	1
90°	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°	190.7	190.7	190.7	190.7	190.7	190.7	190.7	190.7	190.7	190.7	190.7
1°	202.7	201.7	203.7	201.7	201.7	201.7	202.7	200.7	200.7	198.7	198.7
2°	216.7	215.7	215.7	213.7	213.7	214.7	213.7	212.7	211.7	208.7	207.7
3°	229.7	230.7	229.7	226.7	227.7	226.7	226.7	224.7	221.7	218.7	216.7
4°	245.7	243.7	243.7	241.7	240.7	239.7	237.7	236.7	232.7	228.7	224.7
5°	262.6	260.6	259.6	255.6	255.6	253.6	251.6	248.7	243.7	238.7	233.7
6°	277.6	276.6	274.6	270.6	269.6	267.6	265.6	260.6	254.6	248.7	242.7
7°	295.6	292.6	291.6	286.6	283.6	282.6	279.6	272.6	266.6	258.6	251.6
8°	312.6	311.6	309.6	303.6	301.6	297.6	293.6	286.6	278.6	269.6	259.6
9°	332.5	329.5	326.5	318.6	315.6	312.6	308.6	299.6	290.6	278.6	268.6
10°	349.5	347.5	343.5	335.5	330.5	327.5	323.5	312.6	300.6	288.6	276.6
11°	365.5	363.5	361.5	352.5	346.5	342.5	338.5	325.5	312.6	297.6	283.6
12°	385.5	382.5	377.5	369.5	361.5	357.5	350.5	338.5	322.5	306.6	290.6
13°	404.4	401.4	395.4	385.5	376.5	372.5	364.5	349.5	333.5	314.6	297.6
14°	419.4	417.4	412.4	400.4	391.5	385.5	377.5	361.5	342.5	322.5	303.6
15°	437.4	433.4	427.4	416.4	405.4	397.4	389.5	372.5	351.5	329.5	308.6
16°	452.4	448.4	441.4	429.4	417.4	409.4	400.4	382.5	359.5	336.5	312.6
17°	465.3	462.4	455.4	440.4	429.4	420.4	410.4	389.5	366.5	341.5	316.6
18°	477.3	473.3	466.3	451.4	438.4	429.4	419.4	395.4	371.5	345.5	318.6
19°	486.3	482.3	474.3	459.4	445.4	436.4	425.4	401.4	375.5	348.5	320.5
20°	492.3	488.3	480.3	465.3	451.4	441.4	430.4	405.4	379.5	350.5	320.5
21°	495.3	491.3	483.3	468.3	454.4	444.4	433.4	407.4	380.5	350.5	320.5
22°	495.3	491.3	483.3	468.3	454.4	444.4	433.4	407.4	379.5	349.5	318.6
23°	492.3	488.3	480.3	465.3	452.4	442.4	431.4	405.4	378.5	347.5	316.6
24°	485.3	481.3	474.3	459.4	446.4	437.4	426.4	401.4	374.5	343.5	311.6
25°	477.3	473.3	464.3	451.4	439.4	431.4	420.4	396.4	368.5	338.5	307.6
26°	464.3	460.4	454.4	441.4	428.4	421.4	410.4	387.5	360.5	332.5	300.6
27°	449.4	445.4	441.4	426.4	417.4	409.4	399.4	377.5	352.5	324.5	293.6
28°	430.4	427.4	424.4	411.4	401.4	394.4	387.5	365.5	342.5	315.6	286.6
29°	414.4	410.4	405.4	394.4	386.5	381.5	372.5	353.5	330.5	305.6	277.6
30°	393.4	388.5	384.5	377.5	369.5	362.5	355.5	338.5	316.6	293.6	267.6
31°	373.5	368.5	366.5	357.5	349.5	344.5	338.5	321.5	304.6	281.6	257.6
32°	348.5	348.5	344.5	338.5	331.5	326.5	320.5	306.6	289.6	269.6	245.7
33°	327.5	326.5	323.5	317.6	312.6	307.6	304.6	288.6	273.6	257.6	234.7
34°	305.6	306.6	301.6	296.6	292.6	289.6	282.6	272.6	258.6	242.7	223.7
35°	285.6	283.6	279.6	274.6	272.6	270.6	265.6	254.6	244.7	229.7	210.7
36°	264.6	263.6	260.6	256.6	252.6	251.6	246.7	238.7	227.7	215.7	198.7
37°	244.7	243.7	241.7	236.7	235.7	231.7	229.7	221.7	212.7	202.7	187.7
38°	224.7	223.7	221.7	218.7	216.7	217.7	214.7	205.7	197.7	187.7	174.8
39°	206.7	206.7	205.7	201.7	201.7	199.7	197.7	190.7	183.7	174.8	162.8
40°	188.7	187.7	189.7	185.7	183.7	183.7	180.7	175.8	169.8	162.8	150.8
41°	174.8	172.8	171.8	169.8	169.8	168.8	165.8	162.8	155.8	149.8	139.8
42°	157.8	156.8	156.8	156.8	154.8	153.8	153.8	148.8	144.8	137.8	130.8
43°	143.8	143.8	143.8	141.8	141.8	140.8	139.8	135.8	132.8	126.8	119.8
44°	129.8	128.8	129.8	128.8	129.8	128.8	127.8	124.8	120.8	117.8	109.8



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CANDELA DISTRIBUTION (continued):

	0°	5°	10°	15°	20°	22.5°	25°	30°	35°	40°	45°
45°	116.8	116.8	116.8	116.8	116.8	116.8	115.8	113.8	109.8	106.8	101.9
46°	104.9	103.9	104.9	104.9	104.9	105.9	104.9	102.9	100.9	97.9	92.9
47°	93.9	92.9	93.9	93.9	95.9	94.9	93.9	93.9	91.9	88.9	84.9
48°	83.9	82.9	84.9	83.9	84.9	85.9	85.9	84.9	83.9	80.9	76.9
49°	73.9	74.9	74.9	74.9	76.9	76.9	76.9	76.9	74.9	73.9	69.9
50°	65.9	66.9	65.9	66.9	67.9	68.9	68.9	68.9	67.9	66.9	62.9
51°	57.9	57.9	58.9	58.9	60.9	61.9	61.9	61.9	61.9	59.9	56.9
52°	51.9	51.9	51.9	52.9	53.9	54.9	54.9	55.9	54.9	53.9	50.9
53°	44.9	45.9	46.9	46.9	47.9	48.9	49.9	49.9	48.9	48.9	46.9
54°	39.9	39.9	40.9	41.9	41.9	42.9	43.9	43.9	43.9	42.9	41.9
55°	35.0	35.0	35.9	36.9	36.9	37.9	37.9	38.9	38.9	38.9	36.9
56°	30.0	31.0	31.0	32.0	33.0	34.0	34.0	35.0	35.0	34.0	33.0
57°	26.0	26.0	27.0	28.0	29.0	30.0	30.0	31.0	31.0	31.0	29.0
58°	23.0	22.0	23.0	24.0	25.0	26.0	26.0	27.0	27.0	27.0	26.0
59°	19.0	19.0	20.0	21.0	22.0	23.0	23.0	23.0	24.0	24.0	23.0
60°	16.0	16.0	17.0	18.0	19.0	20.0	20.0	21.0	21.0	21.0	20.0
61°	14.0	14.0	14.0	15.0	16.0	17.0	17.0	18.0	18.0	19.0	18.0
62°	11.0	11.0	12.0	13.0	14.0	14.0	15.0	16.0	16.0	16.0	16.0
63°	9.0	10.0	10.0	11.0	12.0	12.0	13.0	13.0	14.0	14.0	13.0
64°	8.0	8.0	8.0	9.0	10.0	10.0	11.0	11.0	12.0	12.0	11.0
65°	6.0	6.0	7.0	7.0	8.0	9.0	9.0	10.0	10.0	11.0	10.0
66°	5.0	5.0	6.0	6.0	7.0	7.0	8.0	8.0	9.0	9.0	9.0
67°	4.0	4.0	4.0	5.0	6.0	6.0	6.0	7.0	7.0	8.0	7.0
68°	3.0	3.0	4.0	4.0	5.0	5.0	5.0	6.0	6.0	6.0	6.0
69°	3.0	3.0	3.0	3.0	4.0	4.0	4.0	5.0	5.0	5.0	5.0
70°	2.0	2.0	2.0	3.0	3.0	3.0	4.0	4.0	4.0	5.0	5.0
71°	2.0	2.0	2.0	2.0	3.0	3.0	3.0	3.0	4.0	4.0	4.0
72°	2.0	2.0	2.0	2.0	2.0	2.0	2.0	3.0	3.0	3.0	3.0
73°	1.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	3.0	3.0	3.0
74°	1.0	1.0	1.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
75°	1.0	1.0	1.0	1.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
76°	1.0	1.0	1.0	1.0	1.0	1.0	1.0	2.0	2.0	2.0	2.0
77°	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	2.0	2.0	2.0
78°	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
79°	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
80°	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
81°	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
82°	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
83°	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
84°	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
85°	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
86°	0.0	0.0	0.0	0.0	0.0	1.0	0.0	1.0	1.0	1.0	1.0
87°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
88°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
89°	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):

	0°	5°	10°	15°	20°	22.5°	25°	30°	35°	40°	45°
90°	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°	95°
0°	190.7	190.7	190.7	190.7	190.7	190.7	190.7	190.7	190.7	190.7	190.7
1°	198.7	198.7	196.7	194.7	195.7	194.7	193.7	192.7	191.7	190.7	188.7
2°	206.7	205.7	201.7	199.7	199.7	198.7	196.7	193.7	192.7	189.7	186.7
3°	213.7	211.7	207.7	203.7	203.7	201.7	198.7	194.7	191.7	188.7	184.7
4°	221.7	217.7	213.7	208.7	206.7	204.7	199.7	195.7	191.7	186.7	182.7
5°	228.7	223.7	218.7	211.7	209.7	206.7	201.7	195.7	190.7	184.7	179.7
6°	235.7	229.7	222.7	215.7	212.7	209.7	202.7	195.7	189.7	182.7	175.8
7°	242.7	235.7	227.7	217.7	214.7	210.7	202.7	194.7	187.7	179.7	172.8
8°	250.6	241.7	231.7	220.7	216.7	211.7	202.7	193.7	185.7	176.8	168.8
9°	256.6	246.7	234.7	222.7	217.7	212.7	202.7	192.7	182.7	173.8	164.8
10°	263.6	250.6	237.7	224.7	218.7	212.7	200.7	190.7	179.7	169.8	160.8
11°	269.6	255.6	240.7	224.7	219.7	212.7	199.7	187.7	176.8	166.8	156.8
12°	274.6	258.6	242.7	225.7	219.7	211.7	197.7	185.7	173.8	162.8	151.8
13°	279.6	261.6	244.7	225.7	218.7	210.7	195.7	182.7	169.8	158.8	147.8
14°	283.6	263.6	245.7	225.7	217.7	209.7	193.7	178.7	165.8	153.8	142.8
15°	286.6	265.6	245.7	224.7	216.7	207.7	190.7	175.8	161.8	148.8	137.8
16°	289.6	266.6	245.7	222.7	214.7	204.7	187.7	170.8	157.8	144.8	132.8
17°	291.6	267.6	244.7	220.7	211.7	201.7	183.7	166.8	152.8	138.8	127.8
18°	292.6	266.6	243.7	217.7	208.7	198.7	179.7	162.8	147.8	134.8	122.8
19°	293.6	265.6	241.7	215.7	205.7	194.7	175.8	157.8	142.8	128.8	117.8
20°	292.6	264.6	238.7	211.7	201.7	190.7	170.8	152.8	137.8	124.8	112.8
21°	290.6	261.6	235.7	207.7	197.7	185.7	165.8	147.8	132.8	118.8	107.8
22°	288.6	258.6	231.7	203.7	192.7	181.7	160.8	142.8	127.8	113.8	102.9
23°	285.6	254.6	227.7	198.7	187.7	176.8	155.8	137.8	121.8	108.8	97.9
24°	280.6	249.6	221.7	193.7	182.7	170.8	149.8	131.8	116.8	103.9	92.9
25°	276.6	245.7	216.7	188.7	177.8	165.8	144.8	126.8	111.8	98.9	88.9
26°	271.6	240.7	211.7	183.7	171.8	160.8	139.8	121.8	106.8	93.9	84.9
27°	264.6	233.7	205.7	177.8	165.8	154.8	133.8	115.8	101.9	89.9	79.9
28°	257.6	226.7	199.7	170.8	159.8	148.8	127.8	110.8	95.9	84.9	75.9
29°	249.6	218.7	192.7	164.8	152.8	142.8	122.8	105.9	91.9	80.9	71.9
30°	240.7	211.7	185.7	158.8	146.8	136.8	116.8	100.9	86.9	75.9	67.9
31°	231.7	203.7	177.8	151.8	140.8	130.8	111.8	95.9	82.9	71.9	63.9
32°	221.7	194.7	170.8	144.8	134.8	124.8	105.9	90.9	77.9	67.9	59.9
33°	212.7	185.7	162.8	138.8	128.8	118.8	100.9	85.9	73.9	63.9	56.9
34°	201.7	178.7	154.8	131.8	121.8	112.8	95.9	80.9	68.9	59.9	52.9
35°	191.7	169.8	147.8	125.8	115.8	106.8	89.9	75.9	64.9	55.9	49.9
36°	180.7	159.8	139.8	118.8	109.8	100.9	84.9	71.9	60.9	52.9	46.9
37°	170.8	151.8	132.8	111.8	103.9	94.9	79.9	66.9	56.9	49.9	43.9
38°	160.8	142.8	125.8	104.9	97.9	89.9	74.9	62.9	52.9	45.9	40.9
39°	150.8	133.8	116.8	98.9	91.9	83.9	69.9	58.9	49.9	42.9	37.9
40°	140.8	124.8	109.8	92.9	84.9	78.9	65.9	54.9	45.9	39.9	35.9
41°	129.8	116.8	101.9	86.9	79.9	73.9	60.9	50.9	42.9	36.9	33.0
42°	120.8	107.8	94.9	80.9	73.9	67.9	56.9	46.9	39.9	35.0	31.0
43°	111.8	99.9	88.9	74.9	68.9	62.9	52.9	43.9	36.9	32.0	29.0
44°	102.9	91.9	81.9	68.9	62.9	58.9	47.9	39.9	34.0	30.0	27.0



TEST NUMBER: P300539

CATALOG NUMBER: ML4D09_27D2WE - TIR50AWW25 - TL46S6GMWBB

CANDELA DISTRIBUTION (continued):

	50°	55°	60°	65°	67.5°	70°	75°	80°	85°	90°	95°
45°	93.9	84.9	74.9	63.9	58.9	53.9	44.9	36.9	32.0	28.0	25.0
46°	86.9	78.9	68.9	57.9	53.9	48.9	40.9	34.0	29.0	25.0	23.0
47°	78.9	70.9	62.9	53.9	49.9	44.9	36.9	31.0	27.0	23.0	22.0
48°	71.9	64.9	56.9	48.9	44.9	40.9	34.0	29.0	24.0	22.0	20.0
49°	65.9	58.9	51.9	43.9	40.9	36.9	31.0	26.0	22.0	20.0	18.0
50°	58.9	52.9	46.9	39.9	36.9	34.0	28.0	24.0	21.0	18.0	17.0
51°	53.9	47.9	42.9	35.9	34.0	30.0	26.0	22.0	19.0	17.0	16.0
52°	47.9	42.9	37.9	32.0	30.0	27.0	23.0	20.0	17.0	16.0	15.0
53°	42.9	38.9	34.0	29.0	27.0	25.0	21.0	18.0	16.0	15.0	14.0
54°	38.9	34.0	30.0	26.0	24.0	22.0	19.0	16.0	15.0	14.0	13.0
55°	34.0	31.0	27.0	23.0	21.0	20.0	17.0	15.0	14.0	13.0	12.0
56°	31.0	27.0	24.0	20.0	19.0	18.0	16.0	14.0	13.0	12.0	12.0
57°	27.0	24.0	21.0	18.0	17.0	16.0	14.0	13.0	12.0	11.0	11.0
58°	24.0	21.0	19.0	17.0	15.0	15.0	13.0	12.0	11.0	11.0	10.0
59°	21.0	19.0	17.0	15.0	14.0	14.0	12.0	11.0	10.0	10.0	10.0
60°	18.0	16.0	15.0	14.0	13.0	12.0	11.0	11.0	10.0	9.0	9.0
61°	16.0	15.0	13.0	12.0	12.0	11.0	10.0	10.0	9.0	9.0	9.0
62°	14.0	13.0	12.0	11.0	11.0	10.0	10.0	9.0	8.0	8.0	8.0
63°	12.0	12.0	11.0	10.0	10.0	9.0	9.0	8.0	8.0	8.0	8.0
64°	11.0	10.0	10.0	9.0	9.0	9.0	8.0	8.0	7.0	7.0	7.0
65°	10.0	9.0	9.0	8.0	8.0	8.0	7.0	7.0	7.0	7.0	7.0
66°	8.0	8.0	8.0	7.0	7.0	7.0	7.0	6.0	6.0	6.0	6.0
67°	7.0	7.0	7.0	7.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0
68°	6.0	6.0	6.0	6.0	6.0	6.0	6.0	5.0	5.0	5.0	5.0
69°	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
70°	5.0	5.0	5.0	5.0	4.0	5.0	4.0	4.0	4.0	5.0	5.0
71°	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
72°	3.0	3.0	4.0	3.0	3.0	4.0	4.0	4.0	4.0	4.0	4.0
73°	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	4.0	4.0
74°	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
75°	2.0	2.0	2.0	2.0	2.0	3.0	3.0	3.0	3.0	3.0	3.0
76°	2.0	2.0	2.0	2.0	2.0	2.0	2.0	3.0	3.0	3.0	3.0
77°	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	3.0	3.0
78°	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	3.0	3.0
79°	1.0	1.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
80°	1.0	1.0	1.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
81°	1.0	1.0	1.0	1.0	1.0	2.0	2.0	2.0	2.0	2.0	2.0
82°	1.0	1.0	1.0	1.0	1.0	1.0	1.0	2.0	2.0	2.0	2.0
83°	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	2.0	2.0
84°	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
85°	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
86°	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
87°	0.0	0.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
88°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.0	1.0
89°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0



TEST NUMBER: P300539

CATALOG NUMBER: ML4D09_27D2WE - TIR50AWW25 - TL46S6GMWBB

CANDELA DISTRIBUTION (continued):

	50°	55°	60°	65°	67.5°	70°	75°	80°	85°	90°	95°
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0



TEST NUMBER: P300539

CATALOG NUMBER: ML4D09_27D2WE - TIR50AWW25 - TL46S6GMWBB

CANDELA DISTRIBUTION (continued):

	100°	105°	110°	112.5°	115°	120°	125°	130°	135°	140°	145°
0°	190.7	190.7	190.7	190.7	190.7	190.7	190.7	190.7	190.7	190.7	190.7
1°	189.7	187.7	186.7	185.7	185.7	185.7	183.7	182.7	181.7	180.7	180.7
2°	186.7	183.7	181.7	180.7	180.7	178.7	177.8	174.8	173.8	170.8	171.8
3°	183.7	179.7	176.8	175.8	174.8	172.8	169.8	167.8	164.8	162.8	162.8
4°	179.7	175.8	171.8	169.8	168.8	166.8	163.8	160.8	156.8	154.8	153.8
5°	175.8	170.8	166.8	164.8	162.8	159.8	155.8	152.8	149.8	146.8	145.8
6°	171.8	165.8	161.8	159.8	156.8	153.8	148.8	145.8	142.8	139.8	138.8
7°	167.8	161.8	156.8	153.8	151.8	146.8	142.8	138.8	134.8	131.8	130.8
8°	163.8	156.8	150.8	148.8	145.8	141.8	135.8	132.8	127.8	125.8	122.8
9°	159.8	150.8	144.8	142.8	139.8	134.8	129.8	125.8	120.8	118.8	116.8
10°	154.8	145.8	139.8	136.8	133.8	128.8	123.8	118.8	114.8	111.8	109.8
11°	149.8	140.8	134.8	130.8	127.8	122.8	117.8	113.8	109.8	105.9	103.9
12°	144.8	135.8	129.8	125.8	122.8	117.8	112.8	107.8	103.9	99.9	97.9
13°	138.8	130.8	123.8	119.8	116.8	111.8	106.8	101.9	97.9	94.9	92.9
14°	134.8	125.8	118.8	114.8	111.8	106.8	100.9	96.9	92.9	89.9	87.9
15°	128.8	120.8	112.8	109.8	106.8	101.9	96.9	91.9	87.9	84.9	82.9
16°	123.8	114.8	107.8	104.9	101.9	95.9	91.9	86.9	83.9	79.9	77.9
17°	118.8	109.8	102.9	99.9	96.9	91.9	85.9	82.9	78.9	75.9	73.9
18°	113.8	104.9	97.9	94.9	91.9	86.9	81.9	77.9	73.9	71.9	69.9
19°	108.8	99.9	93.9	89.9	86.9	82.9	77.9	73.9	70.9	67.9	66.9
20°	103.9	94.9	88.9	85.9	82.9	77.9	73.9	69.9	66.9	64.9	62.9
21°	98.9	90.9	84.9	80.9	77.9	73.9	69.9	66.9	62.9	61.9	59.9
22°	94.9	85.9	79.9	76.9	74.9	69.9	66.9	62.9	59.9	57.9	56.9
23°	89.9	81.9	75.9	72.9	70.9	65.9	62.9	59.9	56.9	55.9	53.9
24°	84.9	77.9	71.9	68.9	66.9	62.9	59.9	56.9	54.9	52.9	51.9
25°	80.9	73.9	67.9	65.9	62.9	59.9	56.9	53.9	51.9	49.9	48.9
26°	76.9	68.9	64.9	61.9	59.9	56.9	53.9	50.9	48.9	47.9	46.9
27°	71.9	65.9	60.9	58.9	56.9	53.9	50.9	48.9	46.9	45.9	44.9
28°	67.9	61.9	57.9	55.9	53.9	50.9	48.9	45.9	44.9	43.9	42.9
29°	64.9	58.9	54.9	52.9	50.9	47.9	45.9	43.9	42.9	41.9	40.9
30°	60.9	55.9	51.9	49.9	47.9	45.9	43.9	41.9	40.9	39.9	39.9
31°	57.9	51.9	48.9	46.9	44.9	42.9	40.9	39.9	38.9	37.9	37.9
32°	53.9	48.9	45.9	43.9	42.9	40.9	38.9	37.9	36.9	36.9	35.9
33°	50.9	46.9	42.9	41.9	39.9	38.9	36.9	35.9	35.0	35.0	35.0
34°	47.9	43.9	40.9	38.9	37.9	35.9	35.9	35.0	34.0	34.0	34.0
35°	44.9	40.9	38.9	36.9	35.9	35.0	34.0	33.0	32.0	32.0	32.0
36°	41.9	38.9	35.9	35.0	34.0	33.0	32.0	31.0	31.0	31.0	31.0
37°	39.9	35.9	34.0	33.0	32.0	31.0	31.0	30.0	30.0	30.0	30.0
38°	36.9	34.0	32.0	31.0	30.0	29.0	29.0	28.0	28.0	28.0	29.0
39°	35.0	32.0	30.0	29.0	29.0	28.0	28.0	27.0	27.0	27.0	27.0
40°	32.0	30.0	28.0	28.0	27.0	26.0	26.0	26.0	26.0	26.0	26.0
41°	30.0	28.0	27.0	26.0	26.0	25.0	25.0	25.0	25.0	25.0	25.0
42°	28.0	26.0	25.0	25.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0
43°	26.0	25.0	24.0	23.0	23.0	23.0	23.0	23.0	23.0	23.0	24.0
44°	25.0	23.0	22.0	22.0	22.0	22.0	22.0	22.0	22.0	22.0	23.0



TEST NUMBER: P300539

CATALOG NUMBER: ML4D09_27D2WE - TIR50AWW25 - TL46S6GMWBB

CANDELA DISTRIBUTION (continued):

	100°	105°	110°	112.5°	115°	120°	125°	130°	135°	140°	145°
45°	23.0	22.0	21.0	21.0	21.0	20.0	21.0	21.0	21.0	21.0	22.0
46°	21.0	20.0	20.0	20.0	19.0	19.0	20.0	20.0	20.0	21.0	21.0
47°	20.0	19.0	19.0	19.0	18.0	18.0	19.0	19.0	19.0	20.0	20.0
48°	19.0	18.0	18.0	17.0	17.0	18.0	18.0	18.0	19.0	19.0	19.0
49°	17.0	17.0	17.0	17.0	17.0	17.0	17.0	18.0	18.0	18.0	19.0
50°	16.0	16.0	16.0	16.0	16.0	16.0	16.0	17.0	17.0	18.0	18.0
51°	15.0	15.0	15.0	15.0	15.0	15.0	16.0	16.0	17.0	17.0	17.0
52°	14.0	14.0	14.0	14.0	14.0	15.0	15.0	15.0	16.0	16.0	17.0
53°	13.0	13.0	13.0	13.0	14.0	14.0	15.0	15.0	15.0	16.0	16.0
54°	13.0	13.0	13.0	13.0	13.0	13.0	14.0	14.0	15.0	15.0	15.0
55°	12.0	12.0	12.0	12.0	12.0	13.0	13.0	14.0	14.0	15.0	15.0
56°	11.0	11.0	12.0	12.0	12.0	12.0	13.0	13.0	14.0	14.0	14.0
57°	11.0	11.0	11.0	11.0	11.0	12.0	12.0	13.0	13.0	13.0	14.0
58°	10.0	10.0	11.0	11.0	11.0	11.0	12.0	12.0	13.0	13.0	13.0
59°	10.0	10.0	10.0	10.0	10.0	11.0	11.0	12.0	12.0	12.0	13.0
60°	9.0	9.0	10.0	10.0	10.0	10.0	11.0	11.0	12.0	12.0	12.0
61°	9.0	9.0	9.0	9.0	9.0	10.0	10.0	11.0	11.0	12.0	12.0
62°	8.0	8.0	9.0	9.0	9.0	10.0	10.0	10.0	11.0	11.0	11.0
63°	8.0	8.0	8.0	9.0	9.0	9.0	10.0	10.0	10.0	11.0	11.0
64°	7.0	8.0	8.0	8.0	8.0	9.0	9.0	10.0	10.0	10.0	11.0
65°	7.0	7.0	8.0	8.0	8.0	8.0	9.0	9.0	10.0	10.0	10.0
66°	6.0	7.0	7.0	7.0	7.0	8.0	8.0	9.0	9.0	9.0	10.0
67°	6.0	6.0	7.0	7.0	7.0	7.0	8.0	8.0	9.0	9.0	9.0
68°	6.0	6.0	6.0	7.0	7.0	7.0	8.0	8.0	8.0	9.0	9.0
69°	5.0	6.0	6.0	6.0	6.0	7.0	7.0	8.0	8.0	8.0	9.0
70°	5.0	5.0	6.0	6.0	6.0	6.0	7.0	7.0	8.0	8.0	8.0
71°	5.0	5.0	5.0	6.0	6.0	6.0	7.0	7.0	7.0	7.0	8.0
72°	4.0	5.0	5.0	5.0	5.0	6.0	6.0	6.0	7.0	7.0	7.0
73°	4.0	4.0	5.0	5.0	5.0	5.0	6.0	6.0	6.0	7.0	7.0
74°	4.0	4.0	4.0	5.0	5.0	5.0	5.0	6.0	6.0	6.0	7.0
75°	4.0	4.0	4.0	4.0	4.0	5.0	5.0	5.0	6.0	6.0	6.0
76°	3.0	4.0	4.0	4.0	4.0	4.0	5.0	5.0	5.0	6.0	6.0
77°	3.0	3.0	4.0	4.0	4.0	4.0	4.0	5.0	5.0	5.0	6.0
78°	3.0	3.0	3.0	3.0	4.0	4.0	4.0	4.0	5.0	5.0	5.0
79°	3.0	3.0	3.0	3.0	3.0	4.0	4.0	4.0	4.0	5.0	5.0
80°	2.0	3.0	3.0	3.0	3.0	3.0	3.0	4.0	4.0	4.0	4.0
81°	2.0	2.0	3.0	3.0	3.0	3.0	3.0	3.0	4.0	4.0	4.0
82°	2.0	2.0	2.0	2.0	2.0	3.0	3.0	3.0	3.0	3.0	4.0
83°	2.0	2.0	2.0	2.0	2.0	2.0	2.0	3.0	3.0	3.0	3.0
84°	1.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	3.0
85°	1.0	1.0	1.0	1.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
86°	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	2.0	2.0	2.0
87°	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
88°	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
89°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0



TEST NUMBER: P300539

CATALOG NUMBER: ML4D09_27D2WE - TIR50AWW25 - TL46S6GMWBB

CANDELA DISTRIBUTION (continued):

	100°	105°	110°	112.5°	115°	120°	125°	130°	135°	140°	145°
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0



TEST NUMBER: P300539

CATALOG NUMBER: ML4D09_27D2WE - TIR50AWW25 - TL46S6GMWBB

CANDELA DISTRIBUTION (continued):

	150°	155°	157.5°	160°	165°	170°	175°	180°
0°	190.7	190.7	190.7	190.7	190.7	190.7	190.7	190.7
1°	179.7	179.7	179.7	181.7	179.7	179.7	179.7	179.7
2°	170.8	169.8	169.8	169.8	167.8	168.8	167.8	169.8
3°	160.8	159.8	158.8	160.8	157.8	157.8	158.8	158.8
4°	151.8	150.8	150.8	150.8	148.8	148.8	148.8	148.8
5°	142.8	141.8	141.8	141.8	140.8	139.8	138.8	140.8
6°	135.8	133.8	132.8	133.8	132.8	130.8	130.8	130.8
7°	127.8	125.8	125.8	124.8	123.8	122.8	121.8	122.8
8°	120.8	118.8	117.8	118.8	116.8	115.8	114.8	114.8
9°	113.8	111.8	110.8	110.8	109.8	108.8	107.8	108.8
10°	107.8	105.9	104.9	103.9	102.9	101.9	101.9	101.9
11°	101.9	98.9	98.9	98.9	96.9	96.9	95.9	95.9
12°	95.9	93.9	92.9	92.9	90.9	89.9	89.9	89.9
13°	90.9	88.9	87.9	86.9	85.9	85.9	84.9	85.9
14°	84.9	83.9	82.9	82.9	80.9	80.9	80.9	79.9
15°	79.9	78.9	77.9	77.9	76.9	75.9	75.9	74.9
16°	75.9	73.9	73.9	73.9	71.9	71.9	71.9	70.9
17°	71.9	69.9	69.9	69.9	67.9	67.9	67.9	67.9
18°	67.9	66.9	65.9	65.9	64.9	64.9	63.9	64.9
19°	64.9	62.9	62.9	62.9	61.9	61.9	60.9	60.9
20°	60.9	59.9	59.9	59.9	58.9	58.9	57.9	57.9
21°	57.9	56.9	56.9	56.9	55.9	55.9	55.9	55.9
22°	55.9	54.9	53.9	53.9	53.9	52.9	52.9	52.9
23°	52.9	51.9	51.9	51.9	50.9	50.9	50.9	50.9
24°	50.9	49.9	49.9	49.9	48.9	48.9	48.9	48.9
25°	47.9	47.9	46.9	47.9	46.9	46.9	46.9	46.9
26°	45.9	45.9	44.9	45.9	44.9	44.9	44.9	44.9
27°	43.9	43.9	43.9	43.9	42.9	42.9	42.9	42.9
28°	42.9	41.9	41.9	41.9	41.9	41.9	41.9	40.9
29°	40.9	39.9	39.9	39.9	39.9	39.9	39.9	39.9
30°	38.9	38.9	38.9	38.9	38.9	38.9	38.9	38.9
31°	37.9	36.9	36.9	36.9	36.9	36.9	36.9	36.9
32°	35.9	35.9	35.9	35.9	35.9	35.9	35.9	35.9
33°	35.0	35.0	35.0	35.0	35.0	35.0	35.0	35.0
34°	33.0	33.0	33.0	34.0	33.0	34.0	34.0	34.0
35°	32.0	32.0	32.0	32.0	32.0	33.0	33.0	32.0
36°	31.0	31.0	31.0	31.0	31.0	32.0	32.0	31.0
37°	30.0	30.0	30.0	30.0	30.0	30.0	31.0	30.0
38°	29.0	29.0	29.0	29.0	29.0	29.0	29.0	29.0
39°	28.0	28.0	28.0	28.0	28.0	28.0	28.0	28.0
40°	27.0	27.0	27.0	27.0	27.0	27.0	27.0	27.0
41°	26.0	26.0	26.0	26.0	26.0	26.0	26.0	26.0
42°	25.0	25.0	25.0	25.0	25.0	25.0	25.0	25.0
43°	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0
44°	23.0	23.0	23.0	23.0	23.0	23.0	23.0	23.0



TEST NUMBER: P300539

CATALOG NUMBER: ML4D09_27D2WE - TIR50AWW25 - TL46S6GMWBB

CANDELA DISTRIBUTION (continued):

	150°	155°	157.5°	160°	165°	170°	175°	180°
45°	22.0	22.0	22.0	22.0	22.0	22.0	22.0	22.0
46°	21.0	21.0	21.0	22.0	21.0	22.0	22.0	21.0
47°	20.0	21.0	20.0	21.0	21.0	21.0	21.0	20.0
48°	20.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0
49°	19.0	19.0	19.0	19.0	19.0	19.0	19.0	19.0
50°	18.0	18.0	18.0	18.0	18.0	18.0	18.0	18.0
51°	18.0	18.0	18.0	18.0	17.0	18.0	17.0	17.0
52°	17.0	17.0	17.0	17.0	17.0	17.0	17.0	17.0
53°	16.0	16.0	16.0	16.0	16.0	16.0	16.0	16.0
54°	16.0	16.0	16.0	16.0	16.0	16.0	16.0	15.0
55°	15.0	15.0	15.0	15.0	15.0	15.0	15.0	15.0
56°	14.0	15.0	15.0	15.0	14.0	15.0	14.0	14.0
57°	14.0	14.0	14.0	14.0	14.0	14.0	14.0	14.0
58°	13.0	13.0	13.0	14.0	14.0	14.0	14.0	13.0
59°	13.0	13.0	13.0	13.0	13.0	13.0	13.0	13.0
60°	12.0	13.0	13.0	13.0	13.0	13.0	13.0	13.0
61°	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0
62°	11.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0
63°	11.0	11.0	11.0	11.0	11.0	12.0	12.0	11.0
64°	11.0	11.0	11.0	11.0	11.0	11.0	11.0	11.0
65°	10.0	11.0	11.0	11.0	11.0	11.0	11.0	11.0
66°	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0
67°	9.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0
68°	9.0	9.0	9.0	9.0	10.0	10.0	10.0	10.0
69°	9.0	9.0	9.0	9.0	9.0	9.0	9.0	9.0
70°	8.0	9.0	9.0	9.0	9.0	9.0	9.0	9.0
71°	8.0	8.0	8.0	8.0	8.0	9.0	9.0	8.0
72°	8.0	8.0	8.0	8.0	8.0	8.0	8.0	8.0
73°	7.0	7.0	8.0	8.0	8.0	8.0	8.0	8.0
74°	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0
75°	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0
76°	6.0	6.0	6.0	6.0	7.0	7.0	7.0	6.0
77°	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0
78°	5.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0
79°	5.0	5.0	5.0	5.0	5.0	5.0	6.0	5.0
80°	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
81°	4.0	4.0	4.0	5.0	5.0	5.0	5.0	5.0
82°	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
83°	3.0	3.0	4.0	4.0	4.0	4.0	4.0	4.0
84°	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
85°	2.0	2.0	3.0	3.0	3.0	3.0	3.0	3.0
86°	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
87°	1.0	1.0	2.0	2.0	2.0	2.0	2.0	2.0
88°	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
89°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0



TEST NUMBER: P300539

CATALOG NUMBER: ML4D09_27D2WE - TIR50AWW25 - TL46S6GMWBB

CANDELA DISTRIBUTION (continued):

	150°	155°	157.5°	160°	165°	170°	175°	180°
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)