

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: P300538

Luminaire Tested: **ML4D09_27D2WE - TIR50AWW25 - TL46S6GMWWB**

Issue Date: 3/3/2020

Test Information

Test Method: LM-41-14
Report Number: P300538
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G1-1902-156-54)
Test Lab: INNOVATION CENTER(G1)
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: HALO
Catalog Number: ML4D09_27D2WE - TIR50AWW25 - TL46S6GMWWB
Description: ML4 2700K, 900LM DIM-TO-WARM, 25 DEG ASYMM WW, WITH SQUARE ASYMM WW, LINEAR SPREAD LENS, MATTE WHITE FLANGE, BLACK LENS FRAME
Light Source: (1) HIGH LUMEN LED 90CRI / 2700K CCT
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 289.0 lumens
Efficiency: N/A
Efficacy: 25.8 lumens/watt
Spacing Criteria (0/90/45): 1.35 / 0.77 / 1.12
Luminous Opening: Rectangular (W 0.19' x L: 0.19' x H: 0')
CIE Type: Direct

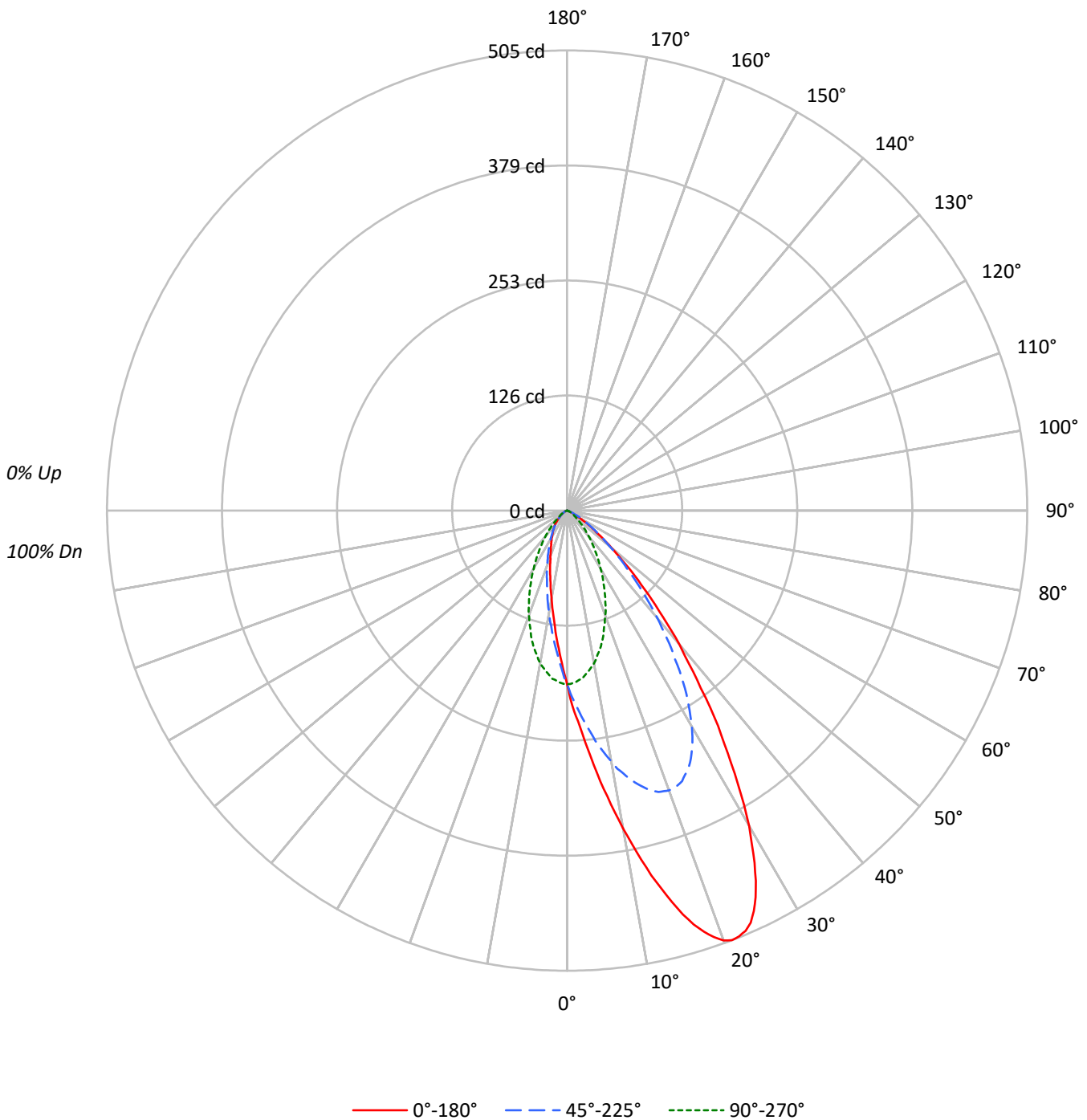
Input Watts (W): 11.2
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	113	109	107	104	110	107	105	102	103	101	99	99	98	96	96	95	93	92					92			
2	106	100	96	92	104	98	94	91	95	92	89	92	89	87	89	87	85	83					83			
3	99	92	86	82	97	90	85	81	88	83	80	85	81	78	83	80	77	75					75			
4	93	84	78	73	91	83	77	73	81	76	72	79	74	71	77	73	70	68					68			
5	88	78	71	66	86	77	70	66	75	69	65	73	68	65	72	67	64	62					62			
6	82	72	65	60	81	71	65	60	69	64	59	68	63	59	67	62	59	57					57			
7	77	67	60	55	76	66	59	55	65	59	54	63	58	54	62	57	54	52					52			
8	73	62	55	50	72	61	55	50	60	54	50	59	54	50	58	53	50	48					48			
9	69	58	51	47	68	57	51	46	56	50	46	55	50	46	54	49	46	44					44			
10	65	54	47	43	64	54	47	43	53	47	43	52	47	43	51	46	43	41					41			

AVERAGE LUMINANCE (cd/sqm):

	0°	90°	180°
0°	58295	58295	58295
5°	80985	56981	42506
10°	110275	52977	30530
15°	141022	47007	22854
20°	163563	39848	17627
25°	163845	32837	13885
30°	141345	25879	11702
35°	107870	19847	10129
40°	76499	14828	8393
45°	49881	10392	6928
50°	30056	7145	5240
55°	17135	4804	3737
60°	8573	3674	3062
65°	3622	2898	2173
70°	895	1790	1790
75°	1183	1183	1183
80°	0	0	0
85°	0	0	0



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	18.5	6.4
10°-20°	56.6	19.6
20°-30°	81.5	28.2
30°-40°	70.0	24.2
40°-50°	39.9	13.8
50°-60°	16.4	5.7
60°-70°	5.0	1.7
70°-80°	1.0	0.3
80°-90°	0.0	0.0
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°	156.7	54.2
0°-40°	226.7	78.4
0°-60°	282.9	97.9
0°-90°	289.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	289.0	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	190	190	190	190	190	
5°	264	236	185	149	138	28
15°	445	313	148	85	72	127
25°	485	314	97	48	41	217
35°	289	215	53	27	27	179
45°	115	101	24	14	16	91
55°	32	35	9	7	7	30
65°	5	8	4	3	3	6
75°	1	1	1	1	1	1
85°	0	0	0	0	0	0
90°	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°	190.4	190.4	190.4	190.4	190.4	190.4	190.4	190.4	190.4	190.4	190.4
1°	206.4	203.4	202.4	203.4	203.4	201.4	202.4	201.4	200.4	200.4	200.4
2°	220.5	215.4	217.4	215.4	214.4	214.4	215.4	213.4	211.4	210.4	208.4
3°	231.5	230.5	231.5	230.5	228.5	226.5	227.5	225.5	223.5	219.5	217.4
4°	246.5	244.5	245.5	243.5	243.5	241.5	238.5	237.5	233.5	229.5	226.5
5°	263.5	260.5	260.5	259.5	257.5	255.5	252.5	250.5	245.5	240.5	235.5
6°	280.6	277.6	278.6	275.6	273.6	268.6	266.6	263.5	257.5	250.5	244.5
7°	299.6	295.6	295.6	291.6	287.6	285.6	282.6	275.6	269.6	261.5	254.5
8°	316.7	313.6	313.6	307.6	304.6	299.6	296.6	289.6	281.6	272.6	263.5
9°	335.7	331.7	330.7	326.7	320.7	315.7	310.6	304.6	294.6	281.6	271.6
10°	354.7	351.7	347.7	344.7	335.7	330.7	326.7	317.7	306.6	292.6	279.6
11°	372.8	369.8	366.8	360.7	352.7	346.7	342.7	329.7	316.7	300.6	288.6
12°	391.8	387.8	383.8	377.8	369.8	361.7	355.7	342.7	327.7	310.6	294.6
13°	410.8	406.8	402.8	393.8	383.8	376.8	370.8	355.7	339.7	319.7	301.6
14°	427.9	421.9	418.9	409.8	399.8	391.8	383.8	367.8	348.7	326.7	307.6
15°	444.9	438.9	433.9	424.9	413.9	402.8	395.8	378.8	357.7	334.7	312.6
16°	461.0	452.9	449.9	438.9	425.9	415.9	407.8	387.8	365.8	341.7	317.7
17°	475.0	468.0	463.0	452.9	438.9	427.9	417.9	395.8	372.8	346.7	321.7
18°	486.0	480.0	475.0	463.0	446.9	436.9	426.9	403.8	378.8	350.7	324.7
19°	495.0	489.0	483.0	470.0	455.9	443.9	433.9	409.8	382.8	353.7	325.7
20°	502.0	495.0	489.0	477.0	461.0	448.9	437.9	412.9	385.8	355.7	326.7
21°	505.0	499.0	492.0	480.0	464.0	451.9	440.9	415.9	387.8	356.7	326.7
22°	504.0	498.0	492.0	480.0	464.0	451.9	440.9	415.9	386.8	355.7	324.7
23°	501.0	495.0	490.0	477.0	462.0	449.9	437.9	413.9	385.8	353.7	322.7
24°	495.0	488.0	483.0	472.0	455.9	444.9	432.9	409.8	381.8	349.7	317.7
25°	485.0	479.0	474.0	462.0	448.9	437.9	426.9	402.8	375.8	344.7	313.6
26°	472.0	467.0	461.0	450.9	437.9	427.9	417.9	394.8	367.8	338.7	307.6
27°	455.9	451.9	447.9	437.9	423.9	415.9	405.8	384.8	358.7	330.7	300.6
28°	437.9	433.9	429.9	421.9	409.8	400.8	393.8	371.8	348.7	320.7	292.6
29°	417.9	415.9	410.8	403.8	392.8	383.8	376.8	359.7	337.7	310.6	283.6
30°	399.8	394.8	390.8	383.8	373.8	366.8	359.7	343.7	323.7	298.6	273.6
31°	376.8	370.8	369.8	363.8	357.7	348.7	344.7	327.7	309.6	286.6	262.5
32°	353.7	349.7	348.7	343.7	337.7	331.7	325.7	311.6	294.6	273.6	251.5
33°	330.7	328.7	326.7	322.7	317.7	312.6	305.6	294.6	278.6	260.5	240.5
34°	308.6	305.6	305.6	301.6	295.6	291.6	286.6	276.6	264.5	247.5	227.5
35°	288.6	284.6	284.6	279.6	276.6	272.6	267.6	259.5	248.5	232.5	215.4
36°	267.6	262.5	262.5	259.5	254.5	253.5	249.5	242.5	232.5	219.5	201.4
37°	243.5	243.5	243.5	239.5	237.5	232.5	232.5	224.5	215.4	204.4	190.4
38°	224.5	225.5	224.5	221.5	218.5	216.4	213.4	208.4	200.4	189.4	177.4
39°	205.4	207.4	206.4	204.4	201.4	198.4	195.4	192.4	185.4	176.4	165.3
40°	191.4	188.4	187.4	187.4	184.4	183.4	181.4	176.4	171.4	164.3	154.3
41°	174.4	172.4	172.4	171.4	168.3	168.3	165.3	162.3	158.3	150.3	142.3
42°	157.3	157.3	156.3	157.3	154.3	153.3	150.3	148.3	145.3	138.3	131.3
43°	142.3	141.3	141.3	141.3	141.3	139.3	138.3	136.3	132.3	128.3	120.2
44°	128.3	127.3	128.3	127.3	127.3	127.3	126.3	124.3	120.2	116.2	110.2



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CANDELA DISTRIBUTION (continued):

	0°	5°	10°	15°	20°	22.5°	25°	30°	35°	40°	45°
45°	115.2	114.2	115.2	115.2	116.2	115.2	114.2	113.2	110.2	106.2	101.2
46°	103.2	102.2	103.2	103.2	105.2	105.2	103.2	102.2	100.2	97.2	91.2
47°	92.2	91.2	93.2	93.2	93.2	94.2	93.2	92.2	92.2	88.2	84.2
48°	81.2	81.2	82.2	83.2	84.2	83.2	84.2	83.2	83.2	79.2	76.2
49°	72.1	73.2	73.2	73.2	74.2	74.2	75.2	75.2	75.2	72.1	68.1
50°	63.1	64.1	65.1	66.1	66.1	67.1	67.1	67.1	67.1	65.1	61.1
51°	56.1	57.1	56.1	57.1	58.1	59.1	60.1	60.1	60.1	58.1	55.1
52°	49.1	49.1	50.1	50.1	52.1	52.1	53.1	53.1	54.1	52.1	50.1
53°	42.1	43.1	43.1	45.1	46.1	47.1	46.1	47.1	48.1	47.1	44.1
54°	37.1	37.1	38.1	39.1	40.1	40.1	41.1	42.1	42.1	41.1	39.1
55°	32.1	33.1	33.1	34.1	35.1	36.1	36.1	37.1	37.1	37.1	35.1
56°	28.1	28.1	29.1	29.1	31.1	31.1	31.1	32.1	33.1	32.1	31.1
57°	24.0	24.0	25.1	26.1	27.1	27.1	27.1	29.1	29.1	29.1	27.1
58°	20.0	20.0	21.0	22.0	23.0	24.0	24.0	25.1	25.1	25.1	24.0
59°	17.0	17.0	18.0	19.0	20.0	20.0	20.0	21.0	22.0	22.0	21.0
60°	14.0	14.0	14.0	15.0	16.0	17.0	17.0	19.0	19.0	19.0	18.0
61°	11.0	12.0	12.0	13.0	14.0	14.0	15.0	16.0	16.0	16.0	16.0
62°	9.0	10.0	10.0	10.0	12.0	12.0	12.0	13.0	14.0	14.0	14.0
63°	7.0	8.0	8.0	9.0	10.0	10.0	10.0	11.0	12.0	12.0	12.0
64°	6.0	6.0	6.0	7.0	8.0	8.0	9.0	9.0	10.0	10.0	10.0
65°	5.0	5.0	5.0	5.0	6.0	7.0	7.0	8.0	8.0	9.0	8.0
66°	4.0	4.0	4.0	4.0	5.0	5.0	6.0	6.0	7.0	7.0	7.0
67°	3.0	3.0	3.0	3.0	4.0	4.0	4.0	5.0	6.0	6.0	6.0
68°	2.0	2.0	2.0	3.0	3.0	3.0	4.0	4.0	5.0	5.0	5.0
69°	2.0	2.0	2.0	2.0	2.0	3.0	3.0	3.0	4.0	4.0	4.0
70°	1.0	1.0	1.0	2.0	2.0	2.0	2.0	3.0	3.0	3.0	3.0
71°	1.0	1.0	1.0	1.0	1.0	2.0	2.0	2.0	2.0	2.0	3.0
72°	1.0	1.0	1.0	1.0	1.0	1.0	1.0	2.0	2.0	2.0	2.0
73°	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	2.0
74°	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
75°	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
76°	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
77°	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
78°	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	0.0	0.0
79°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
80°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
81°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
82°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
83°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
84°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
85°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
86°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
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°	190.4	190.4	190.4	190.4	190.4	190.4	190.4	190.4	190.4	190.4	190.4
1°	199.4	197.4	196.4	195.4	195.4	195.4	194.4	192.4	191.4	190.4	189.4
2°	206.4	204.4	201.4	200.4	199.4	199.4	196.4	193.4	191.4	189.4	187.4
3°	215.4	211.4	207.4	205.4	203.4	201.4	198.4	194.4	191.4	188.4	185.4
4°	222.5	218.5	213.4	209.4	206.4	204.4	200.4	194.4	191.4	186.4	182.4
5°	230.5	225.5	218.5	213.4	210.4	207.4	202.4	195.4	190.4	185.4	179.4
6°	238.5	231.5	223.5	216.4	212.4	209.4	202.4	195.4	189.4	182.4	176.4
7°	246.5	237.5	227.5	219.5	215.4	211.4	203.4	194.4	187.4	179.4	173.4
8°	252.5	242.5	231.5	222.5	217.4	212.4	203.4	193.4	185.4	176.4	169.3
9°	259.5	248.5	235.5	224.5	218.5	213.4	203.4	191.4	182.4	173.4	165.3
10°	266.6	252.5	238.5	225.5	219.5	213.4	202.4	189.4	179.4	170.4	161.3
11°	272.6	257.5	241.5	227.5	220.5	213.4	200.4	187.4	176.4	166.3	156.3
12°	278.6	261.5	242.5	227.5	220.5	212.4	199.4	184.4	172.4	161.3	152.3
13°	283.6	264.5	245.5	227.5	219.5	211.4	196.4	181.4	169.3	157.3	147.3
14°	287.6	267.6	245.5	227.5	218.5	210.4	193.4	178.4	165.3	153.3	141.3
15°	290.6	269.6	246.5	226.5	217.4	207.4	190.4	174.4	160.3	148.3	137.3
16°	293.6	270.6	246.5	224.5	214.4	205.4	187.4	170.4	156.3	143.3	132.3
17°	295.6	270.6	245.5	222.5	212.4	202.4	184.4	166.3	151.3	137.3	126.3
18°	297.6	270.6	243.5	220.5	209.4	198.4	179.4	161.3	146.3	132.3	122.3
19°	297.6	270.6	241.5	217.4	206.4	195.4	175.4	156.3	141.3	127.3	117.2
20°	296.6	268.6	239.5	213.4	202.4	190.4	170.4	151.3	136.3	122.3	111.2
21°	295.6	266.6	235.5	209.4	198.4	186.4	165.3	146.3	131.3	118.2	106.2
22°	293.6	263.5	232.5	205.4	193.4	181.4	160.3	141.3	126.3	112.2	101.2
23°	290.6	259.5	227.5	200.4	188.4	176.4	155.3	136.3	120.2	107.2	96.2
24°	285.6	255.5	222.5	195.4	183.4	170.4	149.3	130.3	114.2	102.2	91.2
25°	280.6	249.5	217.4	189.4	178.4	165.3	144.3	125.3	109.2	97.2	87.2
26°	275.6	244.5	212.4	183.4	172.4	159.3	138.3	120.2	104.2	92.2	82.2
27°	268.6	237.5	205.4	178.4	166.3	153.3	132.3	114.2	99.2	87.2	77.2
28°	261.5	231.5	199.4	172.4	160.3	147.3	127.3	109.2	94.2	83.2	73.2
29°	253.5	223.5	192.4	165.3	153.3	141.3	121.3	103.2	89.2	78.2	69.1
30°	244.5	216.4	185.4	159.3	147.3	135.3	116.2	98.2	85.2	73.2	65.1
31°	235.5	207.4	178.4	152.3	141.3	129.3	110.2	93.2	80.2	69.1	61.1
32°	225.5	199.4	171.4	145.3	135.3	123.3	104.2	88.2	75.2	65.1	57.1
33°	215.4	191.4	163.3	138.3	128.3	117.2	99.2	83.2	71.1	61.1	54.1
34°	204.4	182.4	156.3	132.3	121.3	111.2	93.2	78.2	66.1	57.1	50.1
35°	194.4	173.4	148.3	125.3	116.2	105.2	88.2	73.2	62.1	53.1	47.1
36°	182.4	164.3	140.3	118.2	109.2	99.2	83.2	69.1	58.1	50.1	44.1
37°	173.4	155.3	132.3	112.2	102.2	93.2	78.2	64.1	54.1	46.1	40.1
38°	163.3	145.3	124.3	105.2	96.2	87.2	72.1	60.1	50.1	43.1	37.1
39°	152.3	136.3	117.2	98.2	90.2	81.2	67.1	56.1	47.1	40.1	35.1
40°	141.3	127.3	109.2	92.2	84.2	76.2	63.1	52.1	43.1	37.1	32.1
41°	130.3	117.2	101.2	86.2	78.2	71.1	58.1	48.1	40.1	34.1	29.1
42°	121.3	109.2	94.2	79.2	72.1	65.1	53.1	44.1	37.1	31.1	27.1
43°	111.2	101.2	87.2	73.2	67.1	60.1	49.1	40.1	34.1	29.1	25.1
44°	102.2	93.2	80.2	67.1	62.1	55.1	45.1	37.1	31.1	26.1	23.0



TEST NUMBER: P300538

CATALOG NUMBER: ML4D09_27D2WE - TIR50AWW25 - TL46S6GMWWB

CANDELA DISTRIBUTION (continued):

	50°	55°	60°	65°	67.5°	70°	75°	80°	85°	90°	95°
45°	93.2	85.2	74.2	62.1	57.1	51.1	42.1	34.1	28.1	24.0	21.0
46°	85.2	77.2	67.1	56.1	52.1	46.1	38.1	31.1	25.1	22.0	19.0
47°	77.2	70.1	61.1	51.1	47.1	42.1	34.1	28.1	23.0	20.0	18.0
48°	70.1	64.1	55.1	47.1	42.1	38.1	31.1	25.1	21.0	18.0	16.0
49°	64.1	58.1	50.1	42.1	38.1	34.1	28.1	23.0	19.0	16.0	15.0
50°	57.1	51.1	44.1	37.1	34.1	31.1	25.1	20.0	17.0	15.0	13.0
51°	51.1	46.1	40.1	33.1	30.1	27.1	22.0	18.0	15.0	13.0	12.0
52°	46.1	42.1	36.1	29.1	27.1	24.0	20.0	17.0	14.0	12.0	11.0
53°	41.1	37.1	32.1	26.1	24.0	21.0	18.0	15.0	13.0	11.0	10.0
54°	36.1	33.1	28.1	23.0	21.0	19.0	16.0	13.0	12.0	10.0	9.0
55°	32.1	29.1	24.0	20.0	18.0	17.0	14.0	12.0	11.0	9.0	9.0
56°	28.1	25.1	21.0	18.0	16.0	15.0	13.0	11.0	10.0	9.0	8.0
57°	25.1	22.0	19.0	16.0	14.0	13.0	12.0	10.0	9.0	8.0	7.0
58°	22.0	19.0	16.0	14.0	13.0	12.0	11.0	9.0	8.0	7.0	7.0
59°	19.0	16.0	14.0	12.0	12.0	11.0	10.0	8.0	8.0	7.0	6.0
60°	16.0	14.0	12.0	11.0	10.0	10.0	9.0	8.0	7.0	6.0	6.0
61°	14.0	12.0	11.0	10.0	9.0	9.0	8.0	7.0	6.0	6.0	5.0
62°	12.0	11.0	10.0	9.0	8.0	8.0	7.0	6.0	6.0	5.0	5.0
63°	10.0	10.0	9.0	8.0	7.0	7.0	6.0	6.0	5.0	5.0	4.0
64°	9.0	8.0	7.0	7.0	7.0	6.0	6.0	5.0	5.0	4.0	4.0
65°	8.0	7.0	7.0	6.0	6.0	5.0	5.0	5.0	4.0	4.0	4.0
66°	6.0	6.0	6.0	5.0	5.0	5.0	4.0	4.0	4.0	3.0	3.0
67°	5.0	5.0	5.0	4.0	4.0	4.0	4.0	4.0	3.0	3.0	3.0
68°	5.0	4.0	4.0	4.0	4.0	4.0	3.0	3.0	3.0	3.0	3.0
69°	4.0	4.0	3.0	3.0	3.0	3.0	3.0	3.0	2.0	2.0	2.0
70°	3.0	3.0	3.0	3.0	3.0	2.0	2.0	2.0	2.0	2.0	2.0
71°	3.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
72°	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	1.0	1.0
73°	2.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
74°	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
75°	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
76°	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
77°	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
78°	0.0	0.0	0.0	0.0	0.0	1.0	1.0	1.0	1.0	1.0	1.0
79°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
80°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
81°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
82°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
83°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
84°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
85°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
86°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
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



TEST NUMBER: P300538

CATALOG NUMBER: ML4D09_27D2WE - TIR50AWW25 - TL46S6GMWWB

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: P300538

CATALOG NUMBER: ML4D09_27D2WE - TIR50AWW25 - TL46S6GMWWB

CANDELA DISTRIBUTION (continued):

	100°	105°	110°	112.5°	115°	120°	125°	130°	135°	140°	145°
0°	190.4	190.4	190.4	190.4	190.4	190.4	190.4	190.4	190.4	190.4	190.4
1°	189.4	187.4	187.4	186.4	186.4	185.4	183.4	183.4	183.4	180.4	180.4
2°	186.4	183.4	183.4	180.4	180.4	179.4	176.4	174.4	173.4	171.4	170.4
3°	183.4	179.4	177.4	175.4	174.4	172.4	169.3	166.3	165.3	162.3	160.3
4°	180.4	174.4	172.4	170.4	168.3	165.3	161.3	158.3	157.3	154.3	152.3
5°	176.4	170.4	167.3	164.3	162.3	159.3	155.3	151.3	149.3	145.3	143.3
6°	172.4	165.3	161.3	159.3	156.3	153.3	148.3	144.3	142.3	137.3	136.3
7°	167.3	160.3	155.3	152.3	151.3	146.3	141.3	137.3	134.3	131.3	127.3
8°	163.3	155.3	149.3	147.3	144.3	139.3	134.3	130.3	127.3	123.3	120.2
9°	159.3	150.3	145.3	141.3	138.3	133.3	128.3	123.3	121.3	117.2	114.2
10°	153.3	145.3	139.3	135.3	132.3	127.3	121.3	117.2	114.2	109.2	106.2
11°	148.3	139.3	133.3	129.3	126.3	121.3	115.2	111.2	108.2	103.2	101.2
12°	143.3	133.3	127.3	123.3	121.3	115.2	109.2	105.2	102.2	98.2	94.2
13°	138.3	129.3	122.3	118.2	115.2	109.2	104.2	99.2	96.2	92.2	89.2
14°	132.3	123.3	117.2	112.2	109.2	104.2	98.2	93.2	90.2	86.2	84.2
15°	128.3	118.2	111.2	107.2	104.2	98.2	93.2	88.2	85.2	81.2	79.2
16°	122.3	113.2	105.2	102.2	99.2	93.2	87.2	84.2	80.2	77.2	74.2
17°	117.2	108.2	100.2	97.2	94.2	88.2	83.2	79.2	76.2	72.1	70.1
18°	112.2	102.2	96.2	91.2	89.2	83.2	78.2	75.2	72.1	68.1	66.1
19°	107.2	98.2	91.2	87.2	84.2	79.2	74.2	70.1	67.1	64.1	62.1
20°	102.2	93.2	86.2	82.2	80.2	75.2	70.1	66.1	64.1	61.1	58.1
21°	97.2	87.2	81.2	78.2	76.2	70.1	66.1	62.1	60.1	57.1	55.1
22°	92.2	83.2	77.2	73.2	71.1	66.1	62.1	59.1	57.1	54.1	52.1
23°	87.2	79.2	72.1	69.1	67.1	62.1	59.1	55.1	54.1	51.1	50.1
24°	82.2	74.2	68.1	66.1	63.1	59.1	55.1	52.1	51.1	48.1	47.1
25°	78.2	70.1	65.1	61.1	59.1	56.1	52.1	49.1	48.1	46.1	45.1
26°	73.2	66.1	61.1	58.1	56.1	52.1	49.1	47.1	45.1	43.1	42.1
27°	69.1	62.1	57.1	55.1	53.1	49.1	46.1	44.1	43.1	41.1	40.1
28°	66.1	59.1	54.1	51.1	50.1	46.1	44.1	42.1	40.1	39.1	38.1
29°	62.1	55.1	51.1	48.1	46.1	43.1	41.1	39.1	38.1	37.1	36.1
30°	58.1	52.1	48.1	45.1	44.1	41.1	39.1	37.1	36.1	35.1	34.1
31°	54.1	48.1	44.1	43.1	41.1	38.1	36.1	35.1	34.1	33.1	33.1
32°	51.1	46.1	42.1	40.1	38.1	36.1	34.1	33.1	32.1	31.1	31.1
33°	48.1	42.1	39.1	37.1	36.1	34.1	32.1	31.1	30.1	30.1	29.1
34°	44.1	39.1	37.1	35.1	34.1	32.1	30.1	29.1	29.1	28.1	28.1
35°	41.1	37.1	34.1	32.1	31.1	30.1	28.1	27.1	27.1	27.1	26.1
36°	39.1	35.1	32.1	30.1	29.1	28.1	27.1	26.1	26.1	25.1	25.1
37°	36.1	32.1	30.1	28.1	27.1	26.1	25.1	24.0	24.0	24.0	24.0
38°	33.1	30.1	27.1	26.1	25.1	24.0	23.0	23.0	23.0	22.0	23.0
39°	31.1	27.1	25.1	24.0	24.0	23.0	22.0	21.0	21.0	21.0	21.0
40°	28.1	26.1	24.0	23.0	22.0	21.0	20.0	20.0	20.0	20.0	20.0
41°	26.1	24.0	22.0	21.0	21.0	20.0	19.0	19.0	19.0	19.0	19.0
42°	24.0	22.0	20.0	20.0	19.0	18.0	18.0	18.0	18.0	18.0	18.0
43°	22.0	20.0	19.0	18.0	18.0	17.0	17.0	16.0	17.0	17.0	17.0
44°	20.0	18.0	17.0	17.0	17.0	16.0	16.0	15.0	15.0	16.0	16.0



TEST NUMBER: P300538

CATALOG NUMBER: ML4D09_27D2WE - TIR50AWW25 - TL46S6GMWWB

CANDELA DISTRIBUTION (continued):

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



TEST NUMBER: P300538

CATALOG NUMBER: ML4D09_27D2WE - TIR50AWW25 - TL46S6GMWWB

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: P300538

CATALOG NUMBER: ML4D09_27D2WE - TIR50AWW25 - TL46S6GMWWB

CANDELA DISTRIBUTION (continued):

	150°	155°	157.5°	160°	165°	170°	175°	180°
0°	190.4	190.4	190.4	190.4	190.4	190.4	190.4	190.4
1°	181.4	178.4	180.4	180.4	179.4	178.4	178.4	178.4
2°	171.4	169.3	168.3	169.3	167.3	167.3	166.3	167.3
3°	161.3	158.3	158.3	160.3	158.3	158.3	156.3	156.3
4°	152.3	150.3	149.3	149.3	148.3	147.3	147.3	147.3
5°	142.3	140.3	139.3	140.3	138.3	138.3	137.3	138.3
6°	135.3	131.3	131.3	131.3	130.3	129.3	128.3	128.3
7°	126.3	124.3	122.3	123.3	121.3	122.3	120.2	120.2
8°	119.2	116.2	115.2	116.2	114.2	113.2	112.2	112.2
9°	112.2	109.2	109.2	109.2	107.2	106.2	106.2	105.2
10°	105.2	103.2	101.2	102.2	100.2	99.2	99.2	98.2
11°	99.2	96.2	96.2	95.2	94.2	93.2	92.2	92.2
12°	93.2	90.2	90.2	89.2	88.2	87.2	86.2	87.2
13°	87.2	85.2	84.2	84.2	83.2	82.2	81.2	81.2
14°	82.2	80.2	79.2	79.2	78.2	76.2	76.2	76.2
15°	77.2	75.2	74.2	74.2	73.2	72.1	72.1	72.1
16°	73.2	71.1	70.1	70.1	69.1	68.1	68.1	68.1
17°	69.1	66.1	66.1	66.1	65.1	64.1	64.1	64.1
18°	65.1	63.1	62.1	62.1	61.1	61.1	60.1	60.1
19°	61.1	59.1	59.1	59.1	58.1	57.1	57.1	56.1
20°	58.1	56.1	56.1	55.1	55.1	54.1	54.1	54.1
21°	54.1	53.1	52.1	53.1	52.1	51.1	51.1	51.1
22°	51.1	50.1	49.1	50.1	49.1	49.1	48.1	48.1
23°	49.1	48.1	47.1	47.1	47.1	46.1	46.1	46.1
24°	46.1	45.1	45.1	45.1	45.1	44.1	44.1	44.1
25°	44.1	43.1	43.1	43.1	42.1	42.1	42.1	41.1
26°	42.1	41.1	41.1	41.1	40.1	40.1	40.1	40.1
27°	39.1	39.1	38.1	39.1	38.1	38.1	38.1	38.1
28°	37.1	37.1	37.1	37.1	37.1	36.1	36.1	36.1
29°	36.1	35.1	35.1	35.1	35.1	35.1	35.1	35.1
30°	34.1	33.1	33.1	34.1	33.1	33.1	33.1	33.1
31°	32.1	32.1	32.1	32.1	32.1	32.1	32.1	32.1
32°	31.1	31.1	30.1	31.1	31.1	31.1	31.1	30.1
33°	29.1	29.1	29.1	29.1	29.1	29.1	29.1	29.1
34°	28.1	28.1	28.1	28.1	28.1	28.1	28.1	28.1
35°	26.1	26.1	26.1	27.1	27.1	27.1	27.1	27.1
36°	25.1	25.1	25.1	25.1	26.1	26.1	26.1	25.1
37°	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0
38°	23.0	23.0	23.0	23.0	23.0	23.0	23.0	23.0
39°	21.0	21.0	22.0	22.0	22.0	22.0	22.0	22.0
40°	20.0	20.0	20.0	21.0	21.0	21.0	21.0	21.0
41°	19.0	19.0	19.0	20.0	20.0	20.0	20.0	20.0
42°	18.0	18.0	18.0	19.0	19.0	19.0	19.0	19.0
43°	17.0	17.0	17.0	17.0	18.0	18.0	18.0	18.0
44°	16.0	16.0	16.0	17.0	17.0	17.0	17.0	16.0



TEST NUMBER: P300538

CATALOG NUMBER: ML4D09_27D2WE - TIR50AWW25 - TL46S6GMWWB

CANDELA DISTRIBUTION (continued):

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



TEST NUMBER: P300538

CATALOG NUMBER: ML4D09_27D2WE - TIR50AWW25 - TL46S6GMWWB

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)