

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: P189494

Luminaire Tested: **ML4D09NFL940-TIR50AWW25-TL43R2GMWWB_TL44S2GMWWB**

Issue Date: 3/3/2020

Test Information

Test Method: LM-41-14
Report Number: P189494
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P189448)
Test Lab: INNOVATION CENTER-P2
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: HALO
Catalog Number: ML4D09NFL940-TIR50AWW25-TL43R2GMWWB_TL44S2GMWWB
Description: ML4 RECESSED ASYMMETRIC ACCENT DOWNLIGHT WITH LENSED ROUND (OR SQUARE)
Light Source: CITIZEN 4000K
CLU711
Ballast/Driver: UNV-120-277 ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 712.2 lumens
Efficiency: N/A
Efficacy: 59.1 lumens/watt
Spacing Criteria (0/90/45): 1.51 / 0.58 / 0.91
Luminous Opening: Point Source (0' x 0' x 0')
CIE Type: Direct

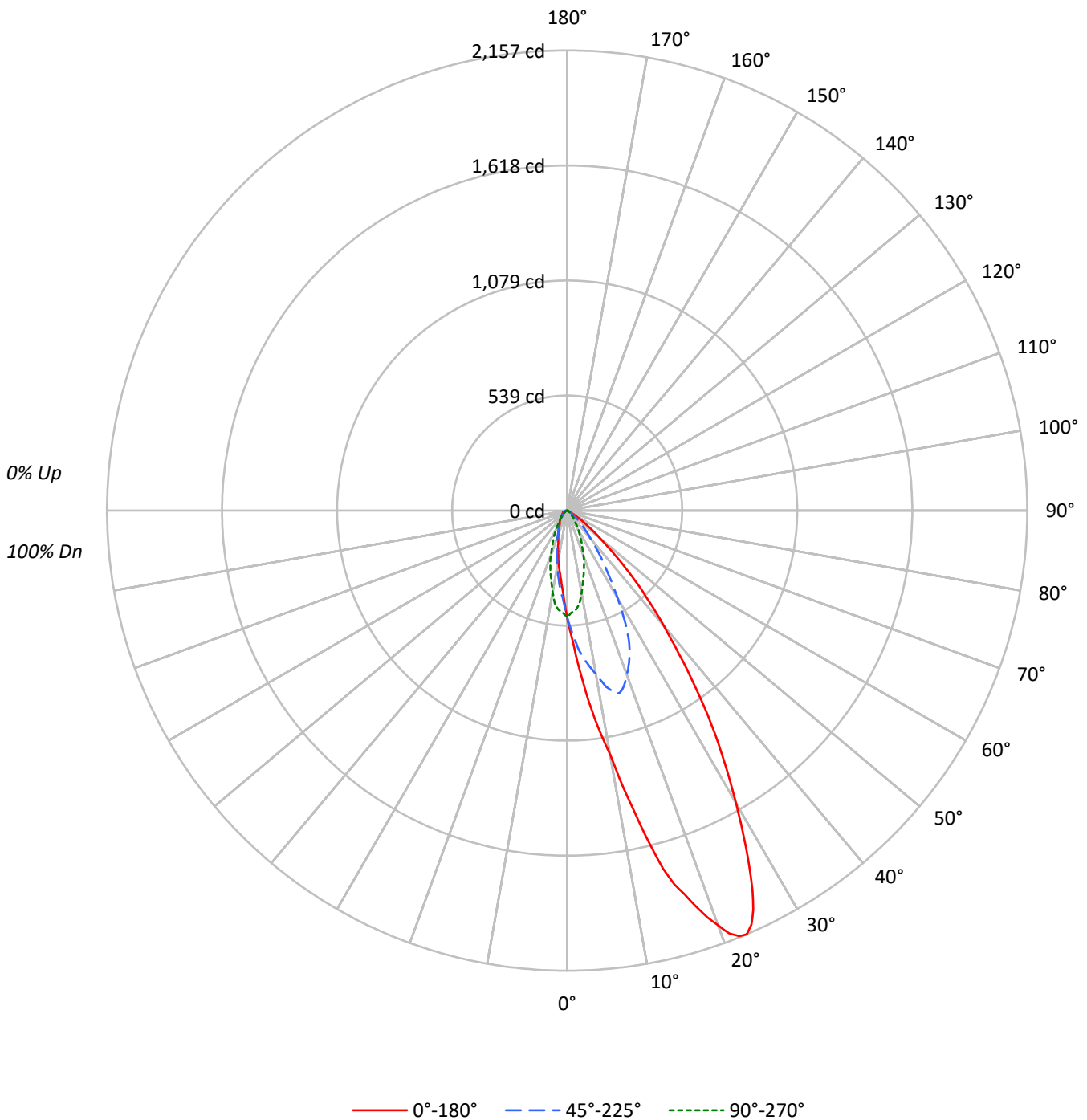
Input Watts (W): 12.06
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100
1	113	109	107	104	110	107	105	102	103	101	99	99	98	96	96	95	93	92
2	106	101	96	92	104	99	95	91	96	92	89	93	90	87	90	87	85	84
3	100	93	87	83	98	91	86	82	89	84	81	86	82	79	84	81	78	76
4	94	86	79	75	92	84	79	74	82	77	73	80	76	72	78	75	72	70
5	89	79	73	68	87	78	72	68	77	71	67	75	70	66	73	69	66	64
6	84	74	67	62	82	73	67	62	71	66	62	70	65	61	69	64	61	59
7	79	69	62	57	78	68	62	57	67	61	57	65	60	57	64	60	56	55
8	75	64	58	53	73	64	57	53	62	57	53	61	56	52	60	56	52	51
9	71	60	54	49	70	60	53	49	59	53	49	58	52	49	57	52	49	47
10	67	56	50	46	66	56	50	46	55	50	46	54	49	46	54	49	45	44

AVERAGE LUMINANCE (cd/sqm):

	0°	90°	180°
0°	Luminaire represents a point source (luminous area is zero).		
5°	No luminance values can be calculated.		
10°			
15°			
20°			
25°			
30°			
35°			
40°			
45°			
50°			
55°			
60°			
65°			
70°			
75°			
80°			
85°			



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	49.5	7.0
10°-20°	161.2	22.6
20°-30°	222.8	31.3
30°-40°	154.8	21.7
40°-50°	74.8	10.5
50°-60°	28.1	3.9
60°-70°	11.0	1.5
70°-80°	7.1	1.0
80°-90°	2.8	0.4
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°	433.5	60.9
0°-40°	588.4	82.6
0°-60°	691.3	97.1
0°-90°	712.2	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	712.2	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	499	499	499	499	499	
5°	783	660	467	368	326	87
15°	1738	889	301	185	162	490
25°	2064	688	155	92	90	908
35°	1116	292	65	49	60	694
45°	409	104	30	28	40	323
55°	91	28	14	19	26	88
65°	7	5	7	15	20	10
75°	2	3	5	11	14	2
85°	1	1	2	4	4	1
90°	0	0	0	0	0	



TEST NUMBER: P189494

CATALOG NUMBER: ML4D09NFL940-TIR50AWW25-TL43R2GMWWB_TL44S2GMWWB

CANDELA DISTRIBUTION (FULL):

	0°	2.5°	5°	7.5°	10°	12.5°	15°	17.5°	20°	22.5°	25°
0°	499.3	499.3	499.3	499.3	499.3	499.3	499.3	499.3	499.3	499.3	499.3
2.5°	615.8	619.9	625.9	622.9	607.7	614.8	612.8	619.9	613.7	615.8	604.7
5°	783.0	771.8	773.8	773.8	754.5	755.6	755.6	753.6	748.5	742.4	718.1
7.5°	980.4	965.2	952.1	959.2	951.0	935.8	916.6	909.6	902.5	878.1	863.9
10°	1161.7	1189.0	1178.9	1178.0	1168.8	1148.6	1105.0	1106.0	1084.7	1050.3	1038.1
12.5°	1437.2	1440.3	1430.1	1407.8	1384.5	1375.4	1337.9	1329.9	1286.3	1254.9	1208.3
15°	1738.1	1699.5	1698.6	1676.3	1612.4	1597.3	1567.9	1526.3	1471.6	1429.1	1337.9
16°	1823.1	1795.8	1783.6	1766.4	1707.6	1677.3	1643.9	1588.1	1531.4	1473.7	1381.5
17°	1879.9	1887.0	1860.6	1841.3	1799.8	1754.2	1708.7	1640.8	1583.1	1509.1	1423.1
18°	1948.7	1972.0	1925.4	1917.3	1887.9	1825.2	1763.4	1688.4	1627.6	1539.6	1464.5
19°	2016.6	2043.9	1990.2	1980.1	1960.8	1885.9	1805.9	1729.9	1662.1	1563.8	1498.0
20°	2069.2	2093.6	2044.9	2026.7	2012.5	1928.4	1835.3	1762.3	1687.4	1585.1	1521.3
21°	2123.9	2122.9	2088.5	2054.0	2033.8	1950.7	1855.5	1785.7	1700.5	1599.3	1532.5
22°	2151.3	2128.0	2110.8	2059.1	2023.7	1950.7	1861.6	1791.7	1698.6	1602.3	1523.3
23°	2157.4	2117.9	2109.7	2046.9	1990.2	1932.5	1853.5	1782.5	1679.3	1593.2	1495.0
24°	2123.9	2084.4	2082.4	2016.6	1940.6	1895.0	1829.2	1750.1	1643.9	1563.8	1448.4
25°	2064.2	2031.8	2024.7	1970.9	1881.9	1840.3	1783.6	1697.5	1593.2	1522.3	1390.7
26°	1981.2	1961.9	1945.6	1908.2	1816.0	1783.6	1718.8	1625.6	1529.3	1454.4	1325.8
27°	1885.9	1881.9	1864.7	1829.2	1748.2	1706.6	1641.8	1542.6	1456.5	1375.4	1258.9
28°	1783.6	1791.7	1764.3	1738.1	1672.2	1620.5	1551.6	1452.4	1375.4	1287.3	1191.1
29°	1683.4	1696.5	1662.1	1640.8	1592.2	1519.2	1456.5	1362.3	1290.3	1201.2	1122.2
30°	1584.0	1595.2	1560.8	1539.6	1502.0	1439.2	1359.2	1273.1	1204.2	1118.2	1051.3
31°	1485.8	1488.9	1450.4	1423.1	1404.8	1340.9	1262.0	1187.0	1120.2	1039.2	977.4
32°	1391.6	1382.5	1357.2	1321.8	1300.5	1243.7	1170.8	1106.0	1038.1	963.2	902.5
33°	1300.5	1281.2	1268.1	1223.5	1195.2	1149.5	1084.7	1028.0	959.2	892.3	825.5
34°	1210.4	1185.1	1178.9	1131.3	1092.8	1060.4	1004.7	951.0	881.2	823.4	751.5
35°	1116.2	1092.8	1088.8	1046.3	999.7	978.4	928.7	875.1	807.2	755.6	678.6
36°	1024.0	1006.8	1002.7	966.2	917.6	899.4	852.8	801.2	737.3	689.7	612.8
37°	934.9	925.7	917.6	891.3	844.7	824.4	781.9	730.2	672.5	623.9	554.0
38°	850.8	850.8	836.6	818.4	778.9	754.5	713.0	662.4	611.8	562.2	501.3
39°	772.7	778.9	760.7	747.4	715.0	686.7	647.2	597.6	553.0	503.4	453.8
40°	702.9	718.1	688.8	678.6	653.2	622.9	583.4	537.8	498.3	450.7	411.2
42.5°	546.9	551.9	532.8	516.5	502.3	475.0	440.6	410.2	378.8	344.4	317.0
45°	409.2	406.2	398.0	377.8	361.6	347.4	326.1	305.8	280.5	259.2	233.0
47.5°	287.7	291.7	283.6	277.5	256.2	250.2	236.0	223.8	203.6	186.4	165.1
50°	198.5	204.5	194.4	194.4	183.3	175.3	165.1	153.9	143.8	129.6	118.5
52.5°	138.8	139.7	134.7	134.7	128.6	121.5	114.4	107.3	100.2	91.2	84.1
55°	91.2	91.2	89.1	87.1	83.0	79.0	74.9	71.9	66.9	61.8	55.7
57.5°	53.7	54.7	52.6	51.7	48.7	47.6	44.6	43.6	40.5	37.5	34.4
60°	28.3	29.4	28.3	28.3	27.3	26.4	25.3	24.3	23.3	21.3	19.3
62.5°	14.2	15.2	14.2	15.2	15.2	13.1	13.1	13.1	12.2	12.2	11.1
65°	7.1	7.1	7.1	7.1	7.1	7.1	7.1	7.1	7.1	6.0	6.0
67.5°	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1
70°	2.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
72.5°	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	3.0



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CANDELA DISTRIBUTION (continued):

	0°	2.5°	5°	7.5°	10°	12.5°	15°	17.5°	20°	22.5°	25°
75°	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
77.5°	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
80°	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
82.5°	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
85°	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
87.5°	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
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):

	27.5°	30°	32.5°	35°	37.5°	40°	42.5°	45°	47.5°	50°	52.5°
0°	499.3	499.3	499.3	499.3	499.3	499.3	499.3	499.3	499.3	499.3	499.3
2.5°	599.6	599.6	596.5	591.5	574.2	571.2	575.3	577.3	558.1	566.2	555.1
5°	720.1	703.9	701.9	693.8	681.7	671.5	662.4	660.4	638.1	632.0	614.8
7.5°	856.8	827.5	806.2	806.2	798.1	773.8	745.4	722.1	718.1	681.7	664.4
10°	1006.8	974.4	937.9	919.7	886.2	853.8	821.4	778.9	765.7	724.2	699.9
12.5°	1157.7	1123.3	1073.6	1026.0	961.1	918.6	886.2	845.7	789.0	763.7	721.2
15°	1292.4	1226.5	1184.0	1110.0	1041.2	982.5	930.8	889.2	811.3	774.8	720.1
16°	1332.9	1253.9	1203.3	1131.3	1067.5	1002.7	937.9	889.2	815.4	766.7	711.1
17°	1366.3	1277.2	1213.4	1145.5	1087.7	1014.9	938.9	879.1	816.3	752.5	699.9
18°	1393.7	1300.5	1220.5	1155.7	1098.0	1018.9	932.8	863.0	811.3	734.3	683.7
19°	1413.9	1320.7	1223.5	1157.7	1094.8	1010.8	921.6	841.6	796.1	713.0	663.4
20°	1424.1	1330.8	1223.5	1151.6	1077.6	992.6	901.4	819.4	772.7	691.8	640.1
21°	1422.0	1332.9	1219.5	1135.4	1049.3	964.3	881.2	797.1	741.4	669.5	615.8
22°	1405.9	1318.8	1209.3	1111.1	1014.9	931.9	853.8	772.7	706.0	645.2	589.5
23°	1377.4	1292.4	1191.1	1080.7	978.4	896.3	821.4	747.4	669.5	618.8	560.1
24°	1340.0	1250.8	1160.7	1043.3	942.0	858.9	787.0	720.1	638.1	589.5	530.7
25°	1291.4	1197.2	1117.1	998.7	904.5	821.4	747.4	687.7	604.7	557.1	499.3
26°	1242.8	1135.4	1059.4	955.1	863.9	783.0	706.0	650.2	571.2	521.6	468.0
27°	1180.0	1071.6	995.6	901.4	822.5	742.4	662.4	607.7	538.8	484.1	436.5
28°	1112.1	1006.8	926.8	844.7	775.9	697.8	616.9	561.1	505.4	446.7	404.1
29°	1042.2	942.9	859.9	788.0	725.2	650.2	570.2	514.5	471.0	409.2	372.7
30°	970.3	879.1	795.0	736.4	667.5	597.6	523.6	469.9	433.5	374.7	341.4
31°	897.4	814.3	732.3	676.6	606.7	543.9	479.1	427.4	395.0	342.3	312.0
32°	823.4	750.6	673.5	615.8	545.9	490.3	436.5	389.0	355.5	317.0	284.6
33°	751.5	685.7	609.8	558.1	489.2	439.6	394.0	353.4	318.0	287.7	258.3
34°	683.7	623.9	557.1	504.4	439.6	394.0	355.5	322.1	284.6	262.4	233.0
35°	619.9	562.2	506.4	454.7	396.1	354.5	320.1	291.7	255.2	237.1	208.6
36°	562.2	504.4	456.8	411.2	358.6	321.0	288.6	264.4	229.9	210.7	187.4
37°	507.5	447.6	409.2	370.7	325.1	290.7	260.3	239.0	208.6	190.4	169.1
38°	459.8	403.1	367.6	330.2	295.7	264.4	235.0	215.7	188.4	171.2	153.0
39°	414.3	368.7	328.1	297.8	268.4	240.1	211.7	192.5	172.1	153.9	138.8
40°	373.8	333.2	294.8	272.5	243.1	217.8	192.5	172.1	157.0	137.8	125.6
42.5°	286.7	259.2	229.9	207.7	183.3	165.1	148.9	132.6	121.5	108.4	99.3
45°	211.7	192.5	175.3	154.9	138.8	124.6	115.5	104.3	92.2	86.1	77.9
47.5°	153.9	138.8	129.6	115.5	104.3	94.2	87.1	80.0	70.9	65.9	59.7
50°	110.3	100.2	92.2	84.1	77.9	70.9	63.8	58.8	52.6	48.7	44.6
52.5°	79.0	71.9	64.8	59.7	55.7	50.6	45.5	41.6	39.5	35.4	32.4
55°	52.6	48.7	43.6	40.5	36.5	33.4	31.4	28.3	26.4	25.3	23.3
57.5°	32.4	29.4	28.3	25.3	23.3	21.3	20.2	19.3	18.2	17.2	16.3
60°	18.2	17.2	16.3	16.3	15.2	14.2	13.1	13.1	12.2	11.1	11.1
62.5°	11.1	10.1	10.1	9.1	9.1	9.1	8.1	8.1	8.1	7.1	7.1
65°	6.0	6.0	6.0	6.0	6.0	6.0	5.1	5.1	6.0	6.0	5.1
67.5°	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1
70°	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	4.1
72.5°	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0



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CATALOG NUMBER: ML4D09NFL940-TIR50AWW25-TL43R2GMWWB_TL44S2GMWWB

CANDELA DISTRIBUTION (continued):

	27.5°	30°	32.5°	35°	37.5°	40°	42.5°	45°	47.5°	50°	52.5°
75°	2.0	2.0	2.0	2.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
77.5°	2.0	2.0	2.0	2.0	2.0	3.0	3.0	3.0	3.0	3.0	3.0
80°	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	3.0	3.0
82.5°	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
85°	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	2.0	1.0	2.0
87.5°	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
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):

	55°	57.5°	60°	62.5°	65°	67.5°	70°	72.5°	75°	77.5°	80°
0°	499.3	499.3	499.3	499.3	499.3	499.3	499.3	499.3	499.3	499.3	499.3
2.5°	551.9	545.9	553.0	546.9	533.8	529.8	530.7	515.6	508.5	501.3	499.3
5°	605.7	596.5	584.5	573.3	559.1	551.0	537.8	524.6	513.5	513.5	494.2
7.5°	647.2	630.0	600.6	582.4	573.3	555.1	531.7	526.6	512.5	502.3	483.2
10°	670.5	642.2	613.7	588.4	570.2	542.9	523.6	507.5	490.3	461.8	452.7
12.5°	680.6	642.2	619.9	586.4	548.0	522.7	503.4	469.9	447.6	421.4	406.2
15°	672.5	630.0	593.5	557.1	513.5	488.2	458.8	425.3	402.1	385.9	358.6
16°	661.4	618.8	573.3	535.8	496.3	468.9	433.5	407.1	384.9	370.7	341.4
17°	647.2	602.6	550.0	512.5	477.0	448.7	410.2	389.9	367.6	353.4	325.1
18°	630.0	583.4	527.7	489.2	458.8	426.4	391.0	372.7	351.5	334.3	309.0
19°	610.7	561.1	508.5	468.0	440.6	405.1	371.7	353.4	333.2	314.0	292.7
20°	586.4	536.8	488.2	446.7	418.3	383.9	353.4	334.3	314.0	291.7	276.5
21°	561.1	510.5	466.9	426.4	396.1	362.6	335.2	314.0	294.8	271.4	259.2
22°	533.8	483.2	446.7	406.2	372.7	343.3	318.0	293.7	275.5	253.2	242.1
23°	506.4	456.8	424.4	385.9	349.4	322.1	299.8	273.4	256.2	237.1	224.9
24°	478.1	431.5	400.0	363.7	326.1	302.8	280.5	254.2	238.0	222.8	208.6
25°	449.7	406.2	374.7	339.3	304.9	282.6	260.3	237.1	221.8	208.6	192.5
26°	420.3	380.9	346.4	317.0	283.6	263.3	240.1	220.8	205.6	194.4	179.2
27°	392.0	354.5	319.1	291.7	263.3	245.1	220.8	204.5	191.4	182.4	167.1
28°	362.6	328.1	292.7	268.4	245.1	226.8	202.6	190.4	179.2	170.2	156.0
29°	335.2	302.8	269.5	247.2	226.8	208.6	187.4	177.2	166.1	157.0	144.8
30°	309.0	277.5	248.1	226.8	208.6	190.4	173.2	163.1	153.9	142.9	133.7
31°	282.6	254.2	227.9	208.6	190.4	175.3	160.1	149.9	140.8	129.6	122.5
32°	257.3	230.9	208.6	190.4	174.2	160.1	147.9	136.7	127.6	117.5	111.4
33°	233.0	208.6	190.4	175.3	158.0	146.8	135.7	124.6	116.5	106.4	101.3
34°	209.7	188.4	174.2	160.1	143.8	133.7	124.6	112.4	105.3	97.2	92.2
35°	188.4	171.2	158.0	144.8	129.6	121.5	112.4	101.3	95.2	89.1	83.0
36°	170.2	154.9	141.8	130.7	117.5	110.3	101.3	92.2	86.1	81.1	76.0
37°	153.9	139.7	127.6	117.5	106.4	100.2	91.2	84.1	79.0	74.9	68.9
38°	139.7	127.6	114.4	106.4	96.2	91.2	81.1	77.0	71.9	68.9	63.8
39°	125.6	114.4	103.3	95.2	88.2	82.0	74.0	69.9	65.9	62.8	58.8
40°	113.5	103.3	93.2	86.1	80.0	74.0	67.8	63.8	60.7	57.7	53.7
42.5°	89.1	82.0	74.9	68.9	63.8	58.8	55.7	51.7	48.7	45.5	43.6
45°	69.9	64.8	60.7	55.7	50.6	46.6	44.6	40.5	38.4	36.5	35.4
47.5°	53.7	49.6	46.6	43.6	39.5	37.5	34.4	32.4	30.4	30.4	28.3
50°	40.5	37.5	34.4	32.4	30.4	28.3	26.4	25.3	24.3	24.3	23.3
52.5°	30.4	27.3	26.4	24.3	23.3	22.3	21.3	20.2	19.3	18.2	18.2
55°	21.3	20.2	19.3	18.2	17.2	16.3	16.3	15.2	15.2	14.2	14.2
57.5°	15.2	14.2	14.2	13.1	13.1	12.2	12.2	12.2	11.1	12.2	11.1
60°	10.1	10.1	10.1	10.1	10.1	9.1	9.1	9.1	9.1	9.1	9.1
62.5°	7.1	7.1	7.1	7.1	7.1	7.1	7.1	7.1	7.1	7.1	8.1
65°	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0
67.5°	4.1	4.1	5.1	5.1	5.1	5.1	5.1	5.1	5.1	5.1	6.0
70°	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1	5.1	5.1
72.5°	3.0	3.0	3.0	4.1	4.1	4.1	4.1	4.1	4.1	4.1	5.1



TEST NUMBER: P189494

CATALOG NUMBER: ML4D09NFL940-TIR50AWW25-TL43R2GMWWB_TL44S2GMWWB

CANDELA DISTRIBUTION (continued):

	55°	57.5°	60°	62.5°	65°	67.5°	70°	72.5°	75°	77.5°	80°
75°	3.0	3.0	3.0	3.0	3.0	4.1	4.1	4.1	4.1	4.1	4.1
77.5°	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	4.1	4.1	4.1
80°	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
82.5°	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	3.0	3.0	3.0
85°	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
87.5°	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
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: P189494

CATALOG NUMBER: ML4D09NFL940-TIR50AWW25-TL43R2GMWWB_TL44S2GMWWB

CANDELA DISTRIBUTION (continued):

	82.5°	85°	87.5°	90°	112.5°	135°	157.5°	180°
0°	499.3	499.3	499.3	499.3	499.3	499.3	499.3	499.3
2.5°	503.4	500.4	488.2	478.1	445.7	418.3	409.2	394.0
5°	493.3	477.0	471.0	466.9	399.1	367.6	335.2	326.1
7.5°	463.9	448.7	445.7	440.6	357.5	314.0	282.6	277.5
10°	428.5	417.3	404.1	391.0	310.9	261.3	241.0	236.0
12.5°	392.9	379.8	357.5	340.3	261.3	217.8	203.6	194.4
15°	349.4	329.2	313.0	300.8	220.8	185.4	169.1	162.0
16°	329.2	309.0	295.7	286.7	204.5	174.2	158.0	151.9
17°	309.0	289.7	279.6	271.4	192.5	163.1	146.8	143.8
18°	289.7	273.4	264.4	257.3	181.3	151.9	137.8	135.7
19°	272.5	258.3	250.2	241.0	171.2	141.8	129.6	129.6
20°	256.2	244.1	235.0	224.9	160.1	131.7	123.6	122.5
21°	241.0	230.9	219.8	206.6	149.9	122.5	116.5	116.5
22°	227.9	215.7	203.6	191.4	139.7	113.5	110.3	110.3
23°	213.7	202.6	189.4	177.2	129.6	105.3	104.3	103.3
24°	199.5	188.4	176.2	166.1	119.5	99.3	98.3	96.2
25°	186.4	174.2	163.1	154.9	110.3	92.2	91.2	90.1
26°	173.2	162.0	151.9	144.8	102.3	87.1	85.0	85.0
27°	160.1	148.9	140.8	135.7	95.2	82.0	79.0	80.0
28°	146.8	136.7	130.7	125.6	88.2	77.0	74.0	76.0
29°	134.7	126.6	121.5	116.5	82.0	71.9	69.9	71.9
30°	123.6	116.5	111.4	106.4	76.0	66.9	66.9	69.9
31°	112.4	107.3	101.3	96.2	69.9	61.8	63.8	67.8
32°	103.3	98.3	92.2	87.1	64.8	57.7	61.8	65.9
33°	95.2	91.2	84.1	79.0	59.7	54.7	59.7	63.8
34°	87.1	83.0	76.0	70.9	54.7	51.7	57.7	61.8
35°	80.0	74.9	68.9	64.8	49.6	48.7	55.7	59.7
36°	72.9	67.8	62.8	59.7	45.5	46.6	53.7	57.7
37°	65.9	61.8	57.7	55.7	42.5	44.6	51.7	55.7
38°	59.7	56.7	53.7	51.7	40.5	42.5	49.6	53.7
39°	54.7	51.7	49.6	47.6	38.4	40.5	46.6	51.7
40°	49.6	47.6	45.5	44.6	36.5	38.4	44.6	49.6
42.5°	40.5	39.5	38.4	36.5	31.4	33.4	39.5	44.6
45°	33.4	33.4	31.4	30.4	27.3	28.3	35.4	39.5
47.5°	27.3	26.4	25.3	25.3	23.3	25.3	30.4	33.4
50°	22.3	21.3	21.3	21.3	20.2	23.3	27.3	29.4
52.5°	17.2	17.2	17.2	17.2	18.2	21.3	25.3	27.3
55°	14.2	14.2	14.2	14.2	16.3	19.3	24.3	26.4
57.5°	12.2	11.1	11.1	11.1	14.2	18.2	22.3	24.3
60°	9.1	9.1	9.1	10.1	13.1	17.2	21.3	22.3
62.5°	8.1	8.1	8.1	8.1	12.2	16.3	19.3	21.3
65°	7.1	7.1	7.1	7.1	11.1	15.2	19.3	20.2
67.5°	6.0	6.0	6.0	6.0	10.1	14.2	18.2	19.3
70°	5.1	5.1	5.1	6.0	9.1	13.1	16.3	17.2
72.5°	5.1	5.1	5.1	6.0	8.1	12.2	15.2	16.3



TEST NUMBER: P189494

CATALOG NUMBER: ML4D09NFL940-TIR50AWW25-TL43R2GMWWB_TL44S2GMWWB

CANDELA DISTRIBUTION (continued):

	82.5°	85°	87.5°	90°	112.5°	135°	157.5°	180°
75°	4.1	5.1	5.1	5.1	8.1	11.1	13.1	14.2
77.5°	4.1	4.1	4.1	4.1	7.1	9.1	12.2	13.1
80°	4.1	4.1	4.1	4.1	5.1	8.1	10.1	10.1
82.5°	3.0	3.0	3.0	3.0	4.1	6.0	7.1	7.1
85°	2.0	2.0	2.0	2.0	3.0	4.1	4.1	4.1
87.5°	1.0	1.0	1.0	1.0	2.0	2.0	2.0	2.0
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)