

LM-79-08 Approved Method: Electrical and Photometric Measurements of Solid-State Lighting Products

Test Report Prepared for

Cooper Lighting Solutions

(formerly Eaton)

Brand: FAIL-SAFE

Report Number: P#

Luminaire Tested: **FLDSQ4C40D010 FEU4C409030 F4LC-SQLWW-LI**

Issue Date: 12/13/2022

Tested By:

Approved By:



Cooper Lighting Solutions laboratories have been accredited by National Voluntary Laboratory Accreditation Program (NVLAP) that it adheres to the requirements of ISO/IEC 17025:2005 and appropriate IESNA test methods. This report must not be used to claim product certification, approval or endorsement by NVLAP, NIST or any agency of the Federal Government. Results contained in this report are valid for luminaire sample tested, as supplied by requestor. Information related to the luminaire tested has been supplied by requestor and can affect the validity of the test results. Report shall not be reproduced except in full without approval of Cooper Lighting Solutions Lighting Laboratory. Test performed at address noted above.



Test Information

Test Method: LM-79-08
 Report Number: P#
 Test Lab: INNOVATION CENTER
 Issue Date: 12/13/2022
 Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
 Product Line: FAIL-SAFE
 Catalog Number: FLDSQ4C40D010 FEU4C409030 F4LC-SQLWW-LI
 Description: 4 INCH 4000 LUMEN FAIL-SAFE LED DOWNLIGHT WITH, 3000K, 90CRI LEDS AND F4LC-SQLWW TRIM WITH LI FINISH
 Light Source: -
 Ballast/Driver: -

Summary

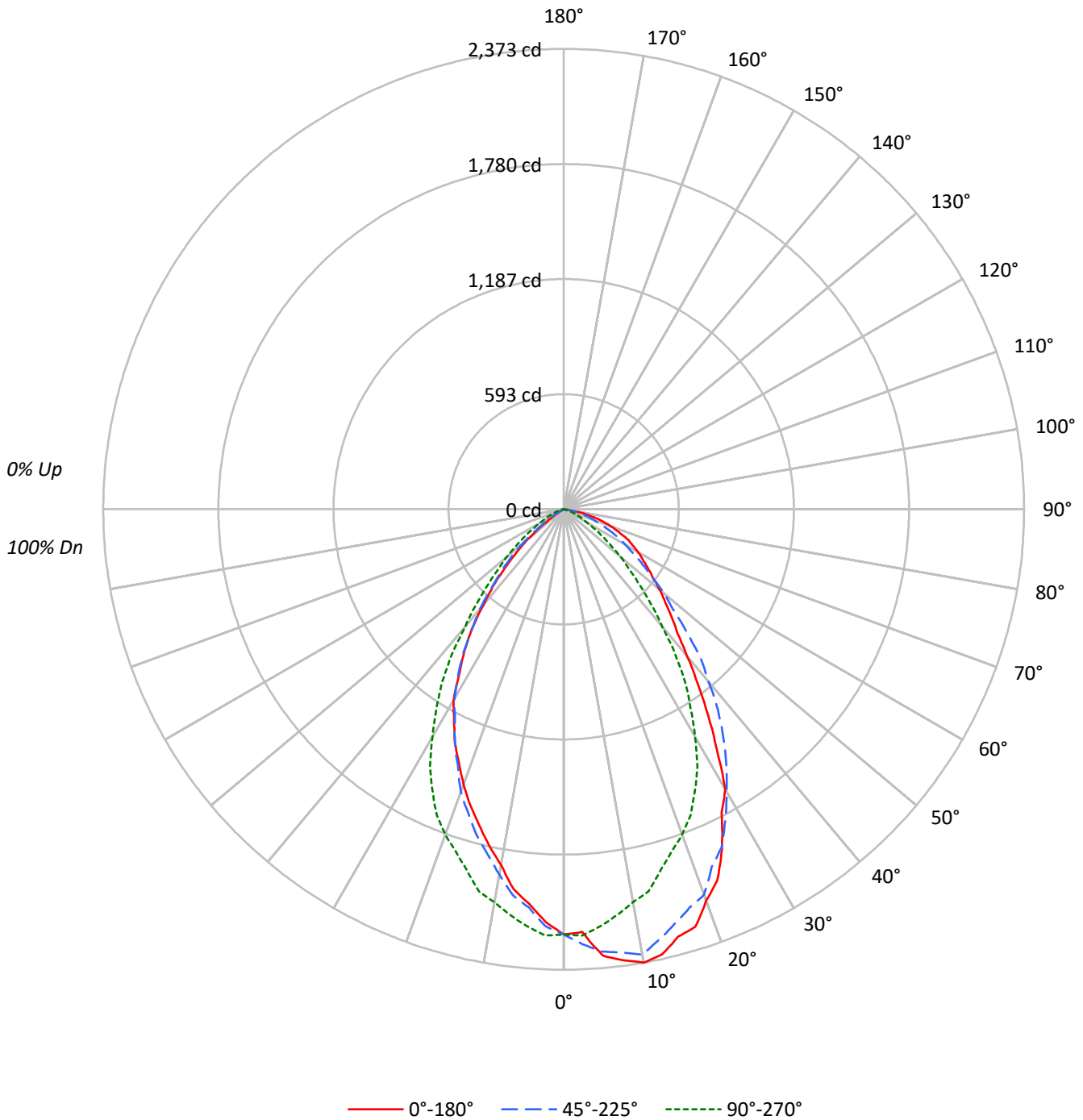
Lumens per Lamp: N/A
 Luminaire Lumens: 3141.0 lumens
 Efficiency: N/A
 Efficacy: 66.8 lumens/watt
 Spacing Criteria (0/90/45): 1.01 / 1 / 1.06
 Luminous Opening: Rectangular (W 0.33' x L: 0.33' x H: 0')
 CIE Type: Direct

Input Watts (W): 47
 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: 25 FT

Measurement and Test Equipment			
Instrument	Identification Number	Calibration Date	Calibration Due Date
Photometer	GONIO 1 IN0055	4/22/2021	10/22/2021
Power Meter	XITRON 2801 IN0197	12/1/2020	12/1/2021
AC Power Source	CHROMA 61505 IN0196	12/1/2020	12/1/2021
DC Power Supply	AGILENT E3634A IN0198	11/30/2020	11/30/2021
Room Thermometer	ONSET IN0143	12/1/2020	12/1/2021

TEST NUMBER: P#
CATALOG NUMBER: FLDSQ4C40D010 FEU4C409030 F4LC-SQLWW-LI

Luminous Intensity Polar Plot



TEST NUMBER: P#

CATALOG NUMBER: FLDSQ4C40D010 FEU4C409030 F4LC-SQLWW-LI

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	0	
RCR																						
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100				100
1	112	108	105	102	109	106	103	101	102	100	98	98	96	95	95	93	92	90				90
2	104	98	93	89	102	96	92	88	93	89	86	90	87	84	87	84	82	80				80
3	97	89	83	78	95	88	82	77	85	80	76	82	78	75	80	77	74	72				72
4	91	81	74	69	89	80	74	69	78	72	68	76	71	67	74	70	66	64				64
5	85	75	67	62	83	74	67	62	72	66	61	70	65	60	68	64	60	58				58
6	80	69	61	56	78	68	61	56	66	60	55	65	59	55	63	58	54	53				53
7	75	63	56	51	73	63	56	51	61	55	50	60	54	50	59	54	50	48				48
8	70	59	52	47	69	58	51	46	57	51	46	56	50	46	55	50	46	44				44
9	66	55	48	43	65	54	47	43	53	47	43	52	46	42	51	46	42	41				41
10	62	51	44	40	61	51	44	40	50	44	39	49	43	39	48	43	39	38				38

AVERAGE LUMINANCE (cd/sqm):

	0°	90°	180°
0°	211426	211426	211426
5°	223692	208941	197744
10°	232461	201569	182258
15°	227815	192383	168239
20°	220426	183184	154854
25°	205603	170353	141267
30°	185596	150757	126468
35°	152881	129064	104917
40°	124773	99620	80751
45°	107200	75651	58076
50°	97016	57582	36687
55°	89276	41534	13273
60°	85701	28387	2026
65°	82763	19201	616
70°	74112	13316	762
75°	60767	6860	0
80°	38007	2889	0
85°	0	0	0

TEST NUMBER: P#
 CATALOG NUMBER: FLDSQ4C40D010 FEU4C409030 F4LC-SQLWW-LI

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	205.3	6.5
10°-20°	553.1	17.6
20°-30°	738.6	23.5
30°-40°	701.1	22.3
40°-50°	484.7	15.4
50°-60°	267.8	8.5
60°-70°	133.0	4.2
70°-80°	52.4	1.7
80°-90°	5.0	0.2
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°	1497.0	47.7
0°-40°	2198.2	70.0
0°-60°	2950.6	93.9
0°-90°	3141.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3141.0	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	2191	2191	2191	2191	2191	
5°	2310	2288	2157	2060	2042	221
15°	2281	2212	1926	1737	1684	645
25°	1931	1923	1600	1327	1327	880
35°	1298	1434	1096	901	891	813
45°	786	901	554	455	426	613
55°	531	499	247	126	79	478
65°	362	263	84	3	3	352
75°	163	100	18	0	0	174
85°	0	3	0	0	0	15
90°	0	0	0	0	0	

TEST NUMBER: P#
 CATALOG NUMBER: FLDSQ4C40D010 FEU4C409030 F4LC-SQLWW-LI

CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	22.5°	25°	30°	35°	40°	45°
0°	2191.2	2191.2	2191.2	2191.2	2191.2	2191.2	2191.2	2191.2	2191.2	2191.2	2191.2
2.5°	2180.7	2241.2	2246.4	2241.2	2249.1	2246.4	2259.6	2246.4	2262.3	2238.6	2243.8
5°	2309.5	2285.8	2335.8	2309.5	2309.5	2306.9	2299.0	2296.3	2306.9	2272.8	2288.5
7.5°	2343.7	2377.9	2422.5	2367.4	2369.9	2369.9	2354.2	2348.9	2348.9	2285.8	2304.3
10°	2372.6	2351.5	2375.2	2354.2	2372.6	2369.9	2380.4	2346.3	2369.9	2333.2	2330.5
12.5°	2348.9	2341.0	2372.6	2338.4	2327.9	2330.5	2317.4	2309.5	2317.4	2275.3	2272.8
15°	2280.6	2288.5	2335.8	2299.0	2293.8	2288.5	2272.8	2246.4	2267.5	2209.7	2212.3
17.5°	2257.0	2243.8	2251.8	2220.2	2228.1	2222.8	2220.2	2196.6	2191.2	2154.5	2154.5
20°	2146.7	2175.5	2175.5	2154.5	2154.5	2151.9	2117.7	2138.7	2115.1	2104.6	2115.1
22.5°	2070.4	2073.1	2073.1	2054.6	2057.3	2046.8	2028.4	2015.2	2028.4	2015.2	1994.2
25°	1931.2	1936.5	1968.0	1933.8	1928.5	1939.0	1923.3	1915.4	1912.8	1881.3	1923.3
27.5°	1763.0	1815.5	1812.9	1799.8	1815.5	1794.5	1786.7	1789.3	1797.2	1794.5	1805.0
30°	1665.8	1673.7	1681.6	1671.1	1673.7	1665.8	1665.8	1668.4	1689.4	1681.6	1678.9
32.5°	1468.7	1495.0	1516.1	1516.1	1518.6	1526.6	1523.9	1579.1	1592.2	1566.0	1560.7
35°	1297.9	1316.4	1334.7	1337.4	1371.5	1374.1	1376.8	1392.5	1429.3	1437.2	1434.5
37.5°	1135.1	1153.4	1158.7	1182.3	1200.8	1219.1	1240.2	1261.2	1292.7	1318.9	1305.9
40°	990.6	998.4	1011.6	1022.1	1058.8	1058.8	1069.3	1111.4	1145.6	1166.6	1163.9
42.5°	869.7	872.3	882.8	901.2	935.4	927.5	935.4	964.3	1014.1	1016.8	1045.7
45°	785.6	782.9	790.9	793.4	814.5	825.0	830.3	851.3	893.3	898.5	901.2
47.5°	709.4	706.8	719.9	725.2	733.0	743.5	743.5	746.2	761.9	775.1	764.6
50°	646.3	646.3	646.3	651.6	664.8	662.1	664.8	675.3	683.1	677.8	675.3
52.5°	578.0	588.5	596.4	599.1	601.7	601.7	604.3	599.1	596.4	588.5	572.7
55°	530.7	541.2	541.2	541.2	541.2	551.7	538.7	541.2	541.2	520.2	499.2
57.5°	483.5	494.0	501.8	491.3	501.8	491.3	486.1	483.5	478.1	457.1	425.6
60°	444.1	449.3	446.6	444.1	449.3	441.4	436.1	425.6	420.4	391.5	370.5
62.5°	399.4	402.0	404.6	399.4	394.1	391.5	381.0	365.2	354.7	331.0	312.6
65°	362.5	354.7	352.0	349.5	344.2	336.3	328.5	310.0	302.1	281.1	262.7
67.5°	307.4	304.8	310.0	302.1	289.0	289.0	281.1	265.4	246.9	233.9	215.4
70°	262.7	260.1	254.9	246.9	244.4	233.9	233.9	215.4	210.2	186.5	170.8
72.5°	215.4	215.4	207.5	199.7	191.8	186.5	183.9	170.8	163.0	149.8	136.6
75°	163.0	163.0	160.3	152.3	147.1	141.8	139.3	128.8	120.8	107.8	99.8
77.5°	115.6	115.6	105.1	99.8	102.4	97.2	91.9	89.3	86.7	78.9	68.4
80°	68.4	65.7	57.9	60.4	57.9	57.9	55.2	52.5	47.2	42.0	36.7
82.5°	18.4	21.0	21.0	21.0	23.7	18.4	18.4	18.4	21.0	21.0	13.2
85°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.7	2.7	2.7
87.5°	2.7	5.2	10.5	10.5	10.5	10.5	10.5	7.9	7.9	7.9	5.2
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: P#
 CATALOG NUMBER: FLDSQ4C40D010 FEU4C409030 F4LC-SQLWW-LI

CANDELA DISTRIBUTION (continued):

	50°	55°	60°	65°	67.5°	70°	75°	80°	85°	90°	95°
0°	2191.2	2191.2	2191.2	2191.2	2191.2	2191.2	2191.2	2191.2	2191.2	2191.2	2191.2
2.5°	2217.6	2214.9	2217.6	2199.2	2241.2	2209.7	2204.4	2199.2	2217.6	2199.2	2172.9
5°	2264.8	2238.6	2230.7	2222.8	2246.4	2209.7	2201.8	2204.4	2191.2	2157.2	2159.7
7.5°	2280.6	2257.0	2233.3	2183.4	2204.4	2196.6	2175.5	2159.7	2138.7	2109.8	2104.6
10°	2285.8	2259.6	2225.4	2209.7	2178.2	2167.7	2159.7	2133.5	2107.2	2057.3	2044.1
12.5°	2270.1	2238.6	2196.6	2183.4	2159.7	2125.6	2107.2	2080.9	2057.3	2017.9	1989.0
15°	2201.8	2175.5	2162.4	2117.7	2107.2	2086.1	2049.4	2012.6	1978.5	1925.9	1910.1
17.5°	2123.0	2112.5	2099.3	2065.1	2062.6	2041.6	2007.4	1975.8	1931.2	1849.7	1823.4
20°	2041.6	2041.6	1999.5	1986.4	2012.6	1970.5	1944.3	1915.4	1823.4	1784.0	1736.8
22.5°	1981.1	1952.2	1928.5	1907.5	1910.1	1883.9	1847.1	1789.3	1755.1	1707.8	1652.7
25°	1862.9	1873.4	1820.9	1812.9	1820.9	1760.3	1742.0	1694.7	1644.7	1600.1	1558.1
27.5°	1789.3	1760.3	1726.3	1697.3	1697.3	1673.7	1621.2	1610.7	1534.4	1492.4	1439.8
30°	1678.9	1657.9	1629.0	1587.0	1581.7	1563.3	1521.3	1495.0	1416.2	1353.1	1324.2
32.5°	1539.6	1531.8	1508.1	1460.9	1445.1	1424.0	1371.5	1326.9	1290.1	1219.1	1185.0
35°	1439.8	1411.0	1361.0	1321.6	1308.4	1271.7	1229.6	1198.1	1158.7	1095.7	1051.0
37.5°	1290.1	1261.2	1213.8	1166.6	1166.6	1129.8	1072.0	1040.5	985.3	948.5	911.7
40°	1158.7	1121.9	1074.7	1019.5	1011.6	959.0	935.4	882.8	848.6	790.9	785.6
42.5°	1011.6	977.4	935.4	893.3	861.8	835.5	775.1	735.7	698.9	670.0	662.1
45°	877.5	832.9	796.1	743.5	712.0	680.5	641.1	614.8	585.9	554.4	536.0
47.5°	761.9	725.2	672.6	625.3	593.8	578.0	533.3	504.5	480.8	459.8	446.6
50°	643.8	599.1	570.2	517.6	512.3	475.6	438.8	415.1	402.0	383.6	365.2
52.5°	554.4	512.3	472.9	433.6	412.5	399.4	365.2	341.5	323.2	310.0	299.5
55°	467.6	430.9	399.4	360.0	346.8	328.5	289.0	283.8	265.4	246.9	233.9
57.5°	402.0	367.8	331.0	304.8	281.1	268.0	236.4	215.4	204.9	189.2	176.0
60°	341.5	304.8	275.9	244.4	233.9	215.4	191.8	173.4	160.3	147.1	134.0
62.5°	286.4	254.9	223.4	197.0	181.3	170.8	152.3	136.6	123.5	113.0	102.4
65°	236.4	207.5	181.3	155.0	147.1	134.0	120.8	107.8	97.2	84.1	73.6
67.5°	194.4	168.2	141.8	123.5	115.6	110.3	94.6	81.4	73.6	65.7	55.2
70°	152.3	134.0	113.0	97.2	89.3	81.4	70.9	63.1	52.5	47.2	39.4
72.5°	118.3	102.4	84.1	70.9	65.7	60.4	49.9	42.0	36.7	31.5	26.2
75°	84.1	70.9	60.4	47.2	44.7	42.0	34.2	28.9	23.7	18.4	15.7
77.5°	57.9	47.2	36.7	31.5	28.9	23.7	21.0	15.7	13.2	10.5	7.9
80°	31.5	23.7	18.4	15.7	13.2	10.5	10.5	7.9	5.2	5.2	2.7
82.5°	10.5	7.9	5.2	2.7	2.7	2.7	2.7	2.7	2.7	0.0	2.7
85°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
87.5°	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	0.0	0.0	0.0
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: P#
 CATALOG NUMBER: FLDSQ4C40D010 FEU4C409030 F4LC-SQLWW-LI

CANDELA DISTRIBUTION (continued):

	100°	105°	110°	112.5°	115°	120°	125°	130°	135°	140°	145°
0°	2191.2	2191.2	2191.2	2191.2	2191.2	2191.2	2191.2	2191.2	2191.2	2191.2	2191.2
2.5°	2188.7	2159.7	2167.7	2167.7	2162.4	2162.4	2157.2	2149.2	2151.9	2136.1	2102.0
5°	2165.0	2128.2	2123.0	2128.2	2107.2	2102.0	2091.5	2107.2	2059.9	2078.3	2057.3
7.5°	2096.7	2062.6	2054.6	2073.1	2046.8	2031.0	2028.4	2049.4	2007.4	1986.4	1962.7
10°	2020.5	2007.4	1983.7	1970.5	1962.7	1965.3	1944.3	1918.0	1910.1	1904.9	1883.9
12.5°	1952.2	1923.3	1902.3	1886.5	1881.3	1881.3	1847.1	1841.9	1818.2	1812.9	1781.4
15°	1870.7	1836.6	1823.4	1802.4	1784.0	1794.5	1755.1	1744.6	1736.8	1702.6	1707.8
17.5°	1799.8	1763.0	1731.5	1718.3	1702.6	1686.8	1650.0	1657.9	1639.5	1639.5	1592.2
20°	1707.8	1668.4	1644.7	1618.5	1618.5	1597.5	1571.2	1573.8	1550.1	1526.6	1484.5
22.5°	1610.7	1568.6	1539.6	1529.1	1502.9	1497.6	1466.1	1458.2	1426.7	1429.3	1392.5
25°	1508.1	1466.1	1426.7	1429.3	1405.7	1395.2	1376.8	1340.0	1326.9	1311.1	1300.6
27.5°	1387.3	1358.4	1324.2	1321.6	1276.9	1279.5	1255.9	1245.4	1213.8	1221.8	1198.1
30°	1276.9	1234.9	1203.3	1195.5	1177.1	1171.8	1135.1	1119.2	1124.6	1103.5	1090.4
32.5°	1163.9	1100.9	1087.7	1072.0	1061.5	1048.3	1022.1	1032.6	1008.9	1014.1	993.1
35°	1014.1	987.9	953.7	953.7	943.2	932.7	914.4	924.9	901.2	890.7	869.7
37.5°	888.0	864.5	830.3	840.8	822.4	806.6	790.9	793.4	772.4	769.9	748.8
40°	751.4	738.3	714.7	714.7	701.5	701.5	693.6	685.8	672.6	656.8	633.2
42.5°	622.7	612.2	601.7	604.3	585.9	601.7	580.7	593.8	551.7	549.2	533.3
45°	528.1	504.5	507.1	496.6	486.1	491.3	472.9	478.1	454.6	449.3	433.6
47.5°	428.3	420.4	404.6	399.4	399.4	391.5	383.6	381.0	370.5	357.3	336.3
50°	352.0	323.2	317.9	310.0	304.8	304.8	294.3	278.5	281.1	268.0	246.9
52.5°	275.9	252.2	241.7	239.1	228.6	223.4	210.2	199.7	191.8	186.5	173.4
55°	212.8	191.8	178.7	178.7	163.0	163.0	144.5	136.6	126.1	115.6	107.8
57.5°	160.3	149.8	136.6	126.1	120.8	107.8	97.2	84.1	76.2	60.4	49.9
60°	120.8	110.3	97.2	89.3	84.1	70.9	57.9	47.2	28.9	23.7	21.0
62.5°	89.3	78.9	65.7	60.4	55.2	44.7	31.5	15.7	7.9	7.9	7.9
65°	65.7	52.5	42.0	36.7	31.5	23.7	10.5	5.2	2.7	2.7	2.7
67.5°	44.7	34.2	23.7	21.0	15.7	7.9	2.7	2.7	2.7	2.7	2.7
70°	28.9	21.0	10.5	7.9	5.2	2.7	2.7	2.7	2.7	2.7	2.7
72.5°	18.4	10.5	5.2	2.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0
75°	10.5	5.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
77.5°	5.2	2.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
80°	2.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
82.5°	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
87.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.7	2.7	2.7
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: P#
 CATALOG NUMBER: FLDSQ4C40D010 FEU4C409030 F4LC-SQLWW-LI

CANDELA DISTRIBUTION (continued):

	150°	155°	157.5°	160°	165°	170°	175°	180°
0°	2191.2	2191.2	2191.2	2191.2	2191.2	2191.2	2191.2	2191.2
2.5°	2138.7	2120.3	2130.8	2107.2	2117.7	2136.1	2123.0	2128.2
5°	2065.1	2054.6	2041.6	2007.4	2033.6	2054.6	2044.1	2041.6
7.5°	1986.4	1949.5	1968.0	1957.5	1952.2	1973.2	1949.5	1975.8
10°	1904.9	1878.6	1876.0	1857.6	1857.6	1873.4	1876.0	1860.2
12.5°	1784.0	1770.9	1770.9	1768.3	1765.6	1781.4	1784.0	1776.2
15°	1697.3	1692.1	1678.9	1676.3	1660.6	1684.2	1686.8	1684.2
17.5°	1592.2	1594.8	1581.7	1581.7	1592.2	1600.1	1579.1	1600.1
20°	1521.3	1508.1	1502.9	1479.2	1492.4	1505.6	1505.6	1508.1
22.5°	1418.8	1397.8	1405.7	1392.5	1384.6	1403.0	1403.0	1411.0
25°	1303.2	1303.2	1308.4	1300.6	1305.9	1316.4	1308.4	1326.9
27.5°	1192.8	1203.3	1203.3	1192.8	1198.1	1229.6	1242.8	1221.8
30°	1090.4	1093.0	1100.9	1095.7	1111.4	1121.9	1119.2	1135.1
32.5°	974.8	987.9	993.1	985.3	990.6	1014.1	1001.1	998.4
35°	885.5	861.8	859.2	861.8	872.3	877.5	872.3	890.7
37.5°	756.7	748.8	738.3	740.9	748.8	759.4	764.6	777.7
40°	633.2	622.7	622.7	620.1	612.2	641.1	641.1	641.1
42.5°	525.5	522.8	509.7	509.7	520.2	528.1	522.8	541.2
45°	430.9	420.4	412.5	412.5	420.4	420.4	428.3	425.6
47.5°	339.0	328.5	331.0	323.2	331.0	341.5	328.5	331.0
50°	254.9	254.9	249.6	254.9	252.2	254.9	249.6	244.4
52.5°	173.4	197.0	199.7	189.2	165.5	144.5	131.3	141.8
55°	99.8	89.3	89.3	86.7	81.4	78.9	70.9	78.9
57.5°	49.9	44.7	44.7	44.7	42.0	39.4	34.2	34.2
60°	21.0	18.4	18.4	15.7	13.2	10.5	7.9	10.5
62.5°	7.9	5.2	5.2	5.2	5.2	5.2	5.2	5.2
65°	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7
67.5°	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7
70°	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7
72.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
75°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
77.5°	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
82.5°	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
87.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)