

Scaled data based on original data using
LM-79-08 Approved Method: Electrical and Photometric Measurements of Solid-State
Lighting Products

Test Report Prepared for

Cooper Lighting Solutions

(formerly Eaton)

Brand: METALUX

Report Number: P328423

Luminaire Tested: **24CGT4540C**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P328423
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (IDL-RB2A40KL1-D30W0XL)
Test Lab: ETA Testing Technology Co., Ltd.
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: 24CGT4540C
Description: 4500 LUMEN, 2X4 CGT LED TROFFER WITH 4000 CCT LEDS

Light Source: -
Ballast/Driver: -

Summary

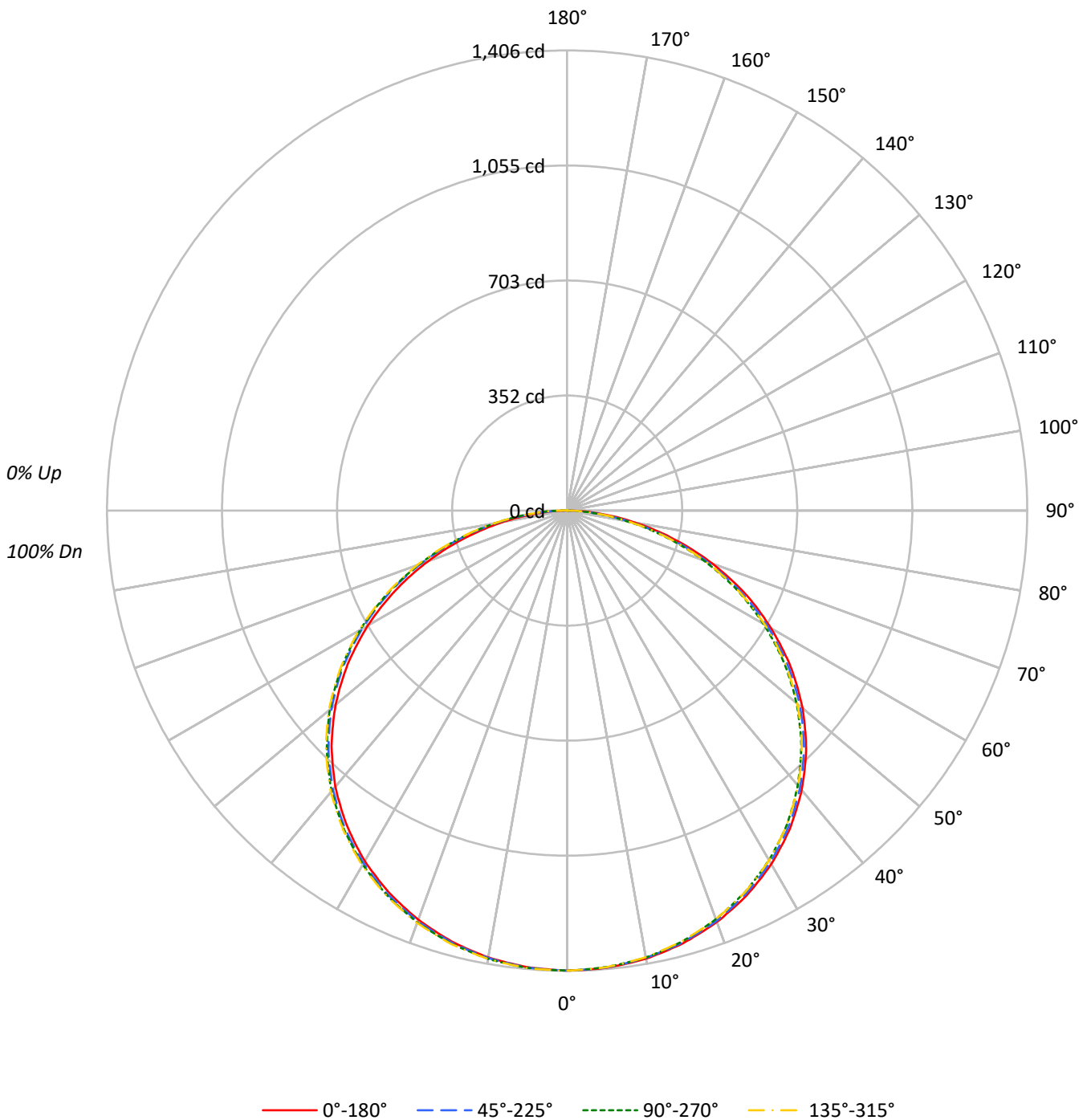
Lumens per Lamp: N/A
Luminaire Lumens: 4432.5 lumens
Efficiency: N/A
Efficacy: 114.2 lumens/watt
Spacing Criteria (0/90/45): 1.31 / 1.31 / 1.44
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 38.8
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	108	103	99	95	105	101	97	93	97	93	90	93	90	87	89	87	85	82
2	98	89	82	76	95	87	81	75	84	78	73	80	76	72	77	74	70	68
3	89	78	70	63	86	76	69	62	73	67	61	71	65	60	68	63	59	57
4	81	69	60	53	79	67	59	52	65	58	52	63	56	51	60	55	50	48
5	75	61	52	45	72	60	51	45	58	50	44	56	49	44	54	48	43	41
6	69	55	46	39	67	54	45	39	52	44	39	50	44	38	49	43	38	36
7	64	50	41	34	62	49	40	34	47	40	34	46	39	34	45	38	34	31
8	59	45	37	31	58	45	36	31	43	36	30	42	35	30	41	35	30	28
9	55	42	33	27	54	41	33	27	40	32	27	39	32	27	38	31	27	25
10	52	38	30	25	50	38	30	25	37	30	25	36	29	25	35	29	24	23

AVERAGE LUMINANCE (cd/sqm):

	0°	90°	180°	270°
0°	1891	1891	1891	1891
5°	1894	1890	1891	1894
10°	1900	1894	1894	1900
15°	1907	1898	1899	1907
20°	1916	1902	1905	1917
25°	1927	1909	1912	1928
30°	1938	1916	1922	1941
35°	1949	1924	1929	1953
40°	1958	1925	1936	1967
45°	1965	1925	1937	1976
50°	1966	1915	1933	1982
55°	1958	1897	1920	1979
60°	1936	1863	1893	1967
65°	1909	1821	1847	1941
70°	1852	1738	1777	1895
75°	1761	1614	1676	1828
80°	1632	1426	1525	1742
85°	1448	1095	1247	1646



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 CATALOG NUMBER: 24CGT4540C

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	133.3	3.0
10°-20°	385.9	8.7
20°-30°	596.5	13.5
30°-40°	739.0	16.7
40°-50°	791.3	17.9
50°-60°	739.4	16.7
60°-70°	585.1	13.2
70°-80°	352.0	7.9
80°-90°	106.0	2.4
90°-100°	2.3	0.1
100°-110°	0.2	0.0
110°-120°	0.3	0.0
120°-130°	0.3	0.0
130°-140°	0.3	0.0
140°-150°	0.2	0.0
150°-160°	0.1	0.0
160°-170°	0.1	0.0
170°-180°	0.0	0.0
0°-30°	1115.7	25.2
0°-40°	1854.7	41.8
0°-60°	3385.4	76.4
0°-90°	4428.5	99.9
90°-120°	2.9	0.1
90°-150°	3.7	0.1
90°-180°	4.0	0.1
0°-180°	4432.5	100.0

CANDELA DISTRIBUTION:

	0°	90°	180°	270°	360°	Flux
0°	1406	1406	1406	1406	1406	
5°	1402	1400	1400	1402	1402	133
15°	1369	1362	1363	1369	1369	387
25°	1298	1286	1288	1299	1298	599
35°	1187	1171	1174	1189	1187	742
45°	1033	1012	1018	1038	1033	796
55°	835	808	819	844	835	745
65°	600	572	580	610	600	592
75°	339	310	322	352	339	359
85°	94	71	81	107	94	103
90°	10	0	2	19	10	16
95°	0	0	0	0	0	2
105°	0	0	0	0	0	0
115°	0	0	0	0	0	0
125°	0	0	0	0	0	0
135°	0	0	0	0	0	0
145°	0	0	0	0	0	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



TEST NUMBER: P328423
 CATALOG NUMBER: 24CGT4540C

CANDELA DISTRIBUTION (FULL):

	0°	10°	20°	30°	40°	50°	60°	70°	80°	90°	100°
0°	1405.6	1405.6	1405.6	1405.6	1405.6	1405.6	1405.6	1405.6	1405.6	1405.6	1405.6
5°	1402.2	1402.5	1402.5	1401.0	1401.1	1401.0	1401.1	1400.9	1401.3	1399.7	1399.7
10°	1390.4	1389.9	1389.2	1388.3	1388.2	1387.3	1387.2	1386.3	1387.1	1386.6	1385.3
15°	1368.8	1368.8	1368.0	1366.3	1366.0	1365.0	1364.0	1363.5	1363.5	1362.5	1361.3
20°	1337.9	1337.7	1336.9	1335.3	1335.1	1333.4	1332.5	1330.8	1330.2	1328.7	1328.5
25°	1297.8	1296.7	1296.0	1294.3	1293.2	1291.2	1291.3	1288.8	1288.4	1286.0	1285.0
30°	1247.5	1246.1	1245.9	1243.3	1242.6	1240.3	1239.2	1236.5	1235.7	1233.4	1232.4
35°	1186.7	1184.9	1184.7	1181.5	1181.2	1178.1	1176.8	1173.7	1173.0	1171.1	1168.4
40°	1114.9	1113.2	1112.6	1109.9	1108.6	1105.6	1103.8	1100.6	1099.1	1096.2	1094.7
45°	1032.7	1029.7	1029.3	1026.1	1025.5	1021.6	1020.0	1015.5	1014.0	1011.8	1009.9
50°	939.1	935.4	935.2	931.6	930.9	926.5	924.7	919.9	918.1	914.9	913.7
55°	834.7	830.8	830.9	826.3	825.4	820.2	818.2	812.7	811.0	808.5	806.9
60°	719.5	716.0	714.9	710.7	709.5	704.7	702.2	696.2	694.7	692.4	690.8
65°	599.7	592.0	594.9	586.1	589.0	579.6	581.2	570.6	573.0	572.1	566.4
70°	470.8	462.1	464.3	455.7	458.0	448.9	450.0	440.5	442.3	441.9	436.7
75°	338.8	330.6	331.3	323.6	324.6	316.2	316.5	308.2	309.2	310.4	306.4
80°	210.6	203.3	202.9	195.8	195.7	188.5	188.7	181.4	182.8	184.1	180.9
85°	93.8	86.4	86.1	78.6	79.1	72.2	72.9	67.3	68.7	70.9	67.4
90°	10.4	12.7	0.1	1.3	0.1	0.4	0.1	6.9	0.1	0.2	7.2
95°	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.2
100°	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.2	0.2	0.2	0.2
105°	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.2
110°	0.3	0.3	0.3	0.2	0.2	0.3	0.3	0.3	0.3	0.3	0.2
115°	0.4	0.4	0.4	0.4	0.3	0.3	0.4	0.4	0.4	0.3	0.3
120°	0.4	0.4	0.5	0.4	0.4	0.4	0.4	0.4	0.4	0.3	0.3
125°	0.5	0.5	0.5	0.4	0.4	0.4	0.4	0.4	0.5	0.3	0.3
130°	0.5	0.5	0.4	0.4	0.4	0.4	0.4	0.5	0.5	0.3	0.3
135°	0.5	0.4	0.4	0.4	0.4	0.4	0.4	0.5	0.5	0.3	0.3
140°	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.3	0.3
145°	0.3	0.3	0.3	0.4	0.4	0.4	0.4	0.4	0.3	0.2	0.3
150°	0.3	0.3	0.3	0.3	0.4	0.3	0.3	0.3	0.3	0.3	0.3
155°	0.3	0.3	0.3	0.3	0.4	0.3	0.3	0.3	0.3	0.3	0.3
160°	0.3	0.3	0.3	0.4	0.4	0.3	0.3	0.3	0.3	0.3	0.3
165°	0.4	0.4	0.4	0.4	0.4	0.3	0.4	0.4	0.4	0.3	0.3
170°	0.4	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3
175°	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.3	0.3
180°	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4



TEST NUMBER: P328423
 CATALOG NUMBER: 24CGT4540C

CANDELA DISTRIBUTION (continued):

	110°	120°	130°	140°	150°	160°	170°	180°	190°	200°	210°
0°	1405.6	1405.6	1405.6	1405.6	1405.6	1405.6	1405.6	1405.6	1405.6	1405.6	1405.6
5°	1399.6	1398.7	1399.5	1400.7	1400.5	1400.5	1399.8	1400.1	1400.5	1400.5	1400.9
10°	1385.0	1384.4	1384.7	1386.4	1385.5	1385.4	1385.7	1386.6	1386.6	1387.2	1387.4
15°	1361.3	1360.6	1360.5	1362.1	1362.7	1361.7	1362.1	1363.2	1364.5	1364.3	1365.5
20°	1327.7	1327.6	1328.3	1328.9	1330.0	1329.5	1330.2	1330.3	1331.9	1332.7	1333.9
25°	1285.0	1284.6	1285.5	1286.6	1287.5	1287.1	1288.0	1288.1	1290.7	1291.4	1292.9
30°	1233.4	1232.1	1233.5	1233.6	1235.5	1234.4	1236.0	1236.9	1239.1	1240.2	1242.3
35°	1169.7	1168.7	1170.6	1171.4	1172.9	1172.9	1174.2	1174.2	1177.5	1179.0	1181.1
40°	1096.0	1095.0	1098.0	1097.7	1099.5	1099.5	1101.6	1102.0	1105.2	1106.9	1110.1
45°	1010.6	1011.5	1013.4	1013.9	1015.5	1015.8	1018.2	1018.2	1021.8	1024.0	1028.1
50°	915.4	915.8	918.0	918.4	920.9	920.9	922.5	923.7	928.2	930.5	934.9
55°	809.1	809.6	812.8	813.1	815.4	815.2	817.5	818.7	823.6	826.2	831.7
60°	693.2	693.5	696.9	697.8	700.3	699.5	702.9	703.5	708.9	711.9	718.0
65°	573.6	569.6	577.3	573.4	580.6	576.2	583.6	580.2	590.7	590.2	599.0
70°	443.0	439.8	446.9	444.1	450.9	447.0	454.3	451.8	461.7	461.8	471.9
75°	311.5	309.2	315.2	312.8	319.2	316.8	323.4	322.4	331.0	331.6	340.9
80°	184.8	183.0	187.6	186.6	192.2	191.2	197.0	196.8	203.9	205.2	212.8
85°	70.9	68.1	72.3	70.5	75.8	75.1	81.4	80.8	88.0	88.0	94.9
90°	0.2	7.3	0.2	7.7	0.2	1.0	0.2	2.1	0.3	18.6	10.9
95°	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.3	0.7	0.3
100°	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.3	0.3	0.5	0.3
105°	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.3	0.3	0.4	0.3
110°	0.2	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.4	0.3
115°	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.4
120°	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.4	0.4	0.4
125°	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.4	0.4	0.4
130°	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.4	0.4	0.4	0.4
135°	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.4	0.4	0.4
140°	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.4	0.4
145°	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.4
150°	0.3	0.4	0.4	0.4	0.3	0.3	0.3	0.3	0.3	0.3	0.4
155°	0.3	0.4	0.4	0.4	0.3	0.3	0.3	0.3	0.3	0.3	0.4
160°	0.3	0.4	0.4	0.4	0.3	0.3	0.3	0.3	0.3	0.4	0.3
165°	0.3	0.4	0.4	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3
170°	0.3	0.3	0.3	0.3	0.3	0.3	0.2	0.3	0.3	0.3	0.3
175°	0.4	0.4	0.4	0.4	0.4	0.4	0.3	0.3	0.4	0.4	0.4
180°	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4



TEST NUMBER: P328423
 CATALOG NUMBER: 24CGT4540C

CANDELA DISTRIBUTION (continued):

	220°	230°	240°	250°	260°	270°	280°	290°	300°	310°	320°
0°	1405.6	1405.6	1405.6	1405.6	1405.6	1405.6	1405.6	1405.6	1405.6	1405.6	1405.6
5°	1401.3	1401.6	1401.5	1402.0	1401.9	1402.5	1402.1	1402.9	1402.8	1403.0	1403.2
10°	1387.4	1388.6	1388.6	1389.5	1389.3	1391.0	1391.2	1391.1	1391.0	1390.6	1391.4
15°	1365.8	1366.6	1366.8	1367.6	1368.5	1369.2	1370.1	1370.4	1370.0	1370.4	1371.0
20°	1334.3	1335.7	1336.6	1337.1	1337.5	1339.0	1339.3	1339.8	1340.2	1340.4	1340.5
25°	1293.7	1295.7	1296.0	1297.5	1297.7	1298.8	1299.8	1299.7	1300.4	1300.6	1301.7
30°	1243.1	1245.1	1246.4	1247.2	1247.8	1249.4	1250.7	1250.4	1251.6	1251.5	1252.4
35°	1182.8	1185.5	1186.1	1187.5	1188.0	1189.1	1190.9	1190.6	1192.6	1191.4	1193.4
40°	1111.4	1114.7	1115.1	1117.3	1117.9	1119.8	1120.8	1121.2	1122.4	1122.2	1123.2
45°	1029.3	1033.2	1034.1	1036.4	1036.5	1038.3	1040.5	1040.5	1042.3	1040.7	1042.5
50°	937.6	941.5	941.9	944.6	944.7	946.8	948.6	948.9	950.4	950.1	950.7
55°	834.6	838.7	839.5	842.3	843.0	843.8	846.7	846.0	848.5	847.3	848.3
60°	721.3	726.0	726.9	730.3	730.0	731.1	733.9	734.1	736.4	734.8	735.6
65°	599.7	607.6	606.3	612.1	609.4	609.8	615.3	612.2	617.9	613.3	616.3
70°	471.8	481.0	478.0	485.7	481.9	481.7	488.5	484.9	491.1	485.1	489.0
75°	341.4	350.2	348.5	355.8	352.6	351.7	357.5	354.4	359.4	354.3	357.3
80°	214.2	221.4	221.3	227.5	226.0	224.8	229.3	226.7	230.3	225.7	227.3
85°	95.5	102.7	103.2	109.4	108.6	106.6	110.4	108.0	110.4	106.3	107.7
90°	1.3	13.0	5.8	22.8	19.9	18.7	18.8	19.6	18.4	25.8	14.4
95°	0.4	0.3	0.2	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.1
100°	0.4	0.3	0.2	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.1
105°	0.3	0.3	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
110°	0.3	0.3	0.3	0.3	0.2	0.3	0.3	0.2	0.2	0.2	0.2
115°	0.4	0.3	0.3	0.3	0.3	0.4	0.4	0.4	0.3	0.3	0.3
120°	0.4	0.4	0.3	0.3	0.3	0.5	0.4	0.4	0.4	0.4	0.4
125°	0.4	0.4	0.3	0.3	0.3	0.5	0.5	0.5	0.4	0.4	0.4
130°	0.4	0.4	0.3	0.3	0.3	0.5	0.5	0.4	0.4	0.4	0.4
135°	0.4	0.4	0.3	0.3	0.3	0.5	0.4	0.4	0.4	0.4	0.4
140°	0.4	0.4	0.3	0.3	0.3	0.4	0.4	0.4	0.3	0.4	0.4
145°	0.4	0.4	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.4	0.4
150°	0.4	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.4	0.3
155°	0.4	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.4	0.3
160°	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.4	0.4
165°	0.3	0.3	0.3	0.3	0.2	0.3	0.4	0.4	0.4	0.4	0.4
170°	0.3	0.3	0.2	0.2	0.2	0.3	0.3	0.3	0.4	0.4	0.4
175°	0.4	0.4	0.4	0.4	0.3	0.3	0.4	0.4	0.4	0.4	0.4
180°	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4



TEST NUMBER: P328423
 CATALOG NUMBER: 24CGT4540C

CANDELA DISTRIBUTION (continued):

	330°	340°	350°	360°
0°	1405.6	1405.6	1405.6	1405.6
5°	1403.0	1402.4	1402.6	1402.2
10°	1391.3	1390.6	1390.6	1390.4
15°	1369.6	1369.9	1368.7	1368.8
20°	1340.1	1339.7	1338.3	1337.9
25°	1300.1	1299.6	1298.7	1297.8
30°	1250.6	1250.2	1247.9	1247.5
35°	1191.5	1190.4	1187.4	1186.7
40°	1120.7	1119.2	1116.0	1114.9
45°	1039.5	1037.8	1033.4	1032.7
50°	947.0	945.2	940.5	939.1
55°	844.2	841.5	836.3	834.7
60°	730.4	727.7	722.0	719.5
65°	608.8	608.3	599.4	599.7
70°	479.9	480.8	470.4	470.8
75°	349.0	348.7	339.3	338.8
80°	220.8	219.9	212.1	210.6
85°	101.9	101.5	94.5	93.8
90°	4.4	12.7	1.2	10.4
95°	0.1	0.1	0.1	0.1
100°	0.1	0.1	0.1	0.1
105°	0.2	0.2	0.2	0.2
110°	0.2	0.3	0.3	0.3
115°	0.4	0.4	0.4	0.4
120°	0.4	0.4	0.4	0.4
125°	0.4	0.5	0.5	0.5
130°	0.4	0.5	0.5	0.5
135°	0.4	0.5	0.5	0.5
140°	0.4	0.4	0.4	0.4
145°	0.4	0.4	0.4	0.3
150°	0.3	0.3	0.3	0.3
155°	0.3	0.3	0.3	0.3
160°	0.4	0.4	0.4	0.3
165°	0.4	0.4	0.4	0.4
170°	0.4	0.4	0.4	0.4
175°	0.4	0.4	0.4	0.4
180°	0.4	0.4	0.4	0.4

(END OF REPORT)