

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: METALUX

Report Number: P273749

Luminaire Tested: **4RCG-4-56D-L935-A**

Issue Date: 3/3/2020

Test Information

Test Method: LM-41-14
Report Number: P273749
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1802-639-20)
Test Lab: INNOVATION CENTER
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: 4RCG-4-56D-L935-A
Description: RCG SERIES DIRECT RECESSED LED LUMINAIRE WITH ASYMMETRIC FLUSH LENS
Light Source: (168) 3500K CCT, 90 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 1979.6 lumens
Efficiency: N/A
Efficacy: 106.4 lumens/watt
Spacing Criteria (0/90/45): 1.37 / 1.23 / 1.5
Luminous Opening: Rectangular (W 3.88' x L: 0.23' x H: 0')
CIE Type: Direct

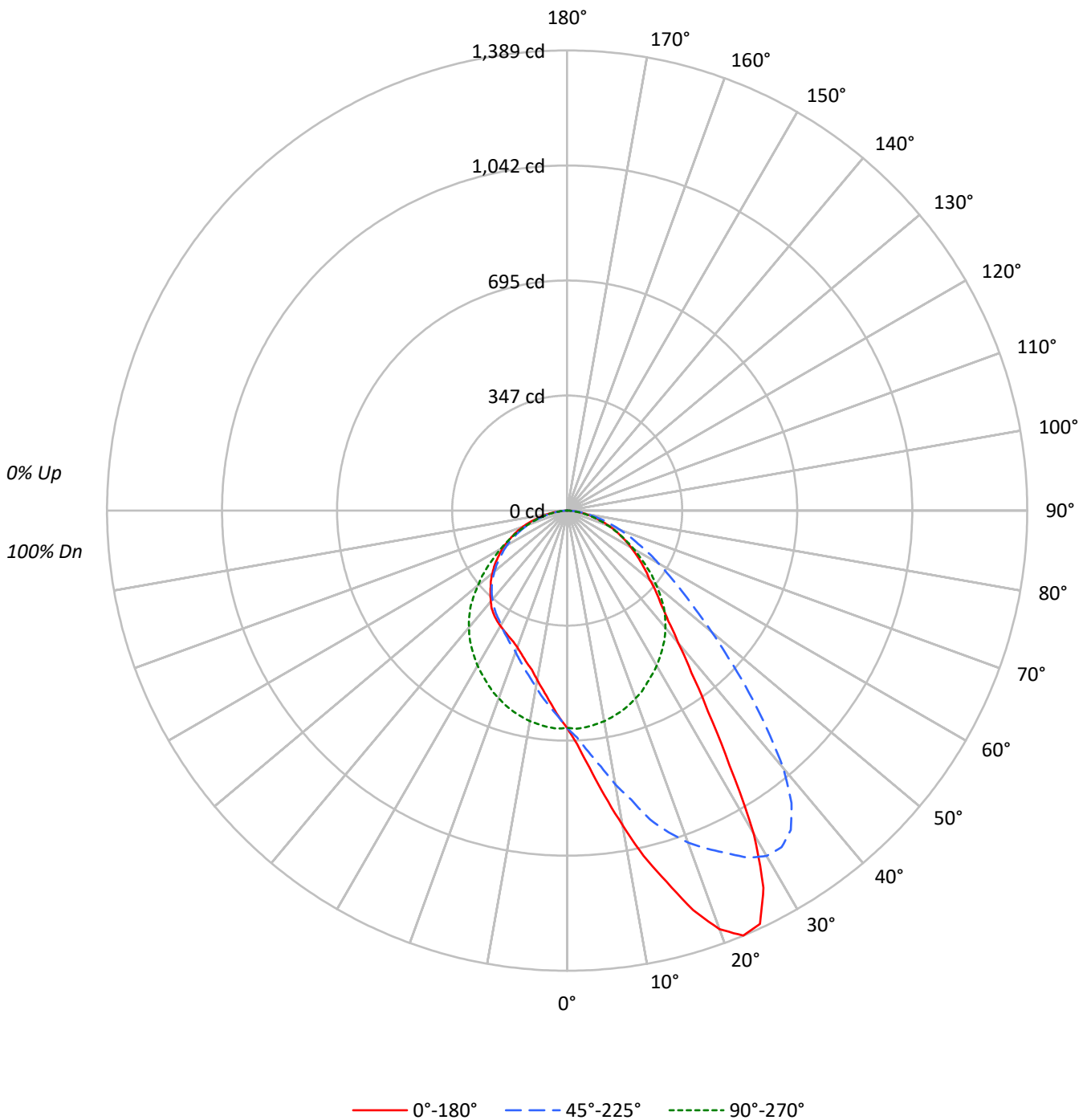
Input Watts (W): 18.6
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	110	105	101	98	107	103	99	96	99	96	93		95	92	90		91	89	87	85
2	100	93	86	81	98	91	85	80	87	82	78		84	80	76		81	78	74	72
3	92	82	74	68	89	80	73	67	77	71	66		75	69	65		72	68	64	62
4	84	73	65	58	82	72	64	58	69	62	57		67	61	56		65	60	56	53
5	78	66	57	51	76	64	56	50	62	55	50		60	54	49		59	53	49	47
6	72	59	51	44	70	58	50	44	56	49	44		55	48	43		53	48	43	41
7	67	54	45	39	65	53	45	39	52	44	39		50	44	39		49	43	38	36
8	62	49	41	35	61	49	41	35	47	40	35		46	39	35		45	39	35	33
9	58	45	37	32	57	45	37	32	43	36	32		42	36	31		41	36	31	29
10	55	42	34	29	53	41	34	29	40	33	29		39	33	29		38	33	28	27

AVERAGE LUMINANCE (cd/sqm):

	0°	90°	180°
0°	7950	7950	7950
5°	9481	7984	7075
10°	11866	7944	6390
15°	14554	7879	5949
20°	17339	7779	5665
25°	18411	7658	5601
30°	15780	7569	5631
35°	10975	7443	5690
40°	8266	7296	5671
45°	6864	7076	5600
50°	6147	6626	5550
55°	5748	6145	5480
60°	5392	5639	5423
65°	5068	5140	5249
70°	4753	4572	5001
75°	4257	4004	4585
80°	3727	3281	3951
85°	2921	2392	2656



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	64.5	3.3
10°-20°	207.2	10.5
20°-30°	348.6	17.6
30°-40°	394.0	19.9
40°-50°	352.9	17.8
50°-60°	284.8	14.4
60°-70°	198.5	10.0
70°-80°	104.2	5.3
80°-90°	25.0	1.3
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°	620.3	31.3
0°-40°	1014.3	51.2
0°-60°	1652.0	83.5
0°-90°	1979.6	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1979.6	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	656	656	656	656	656	
5°	779	730	656	594	582	80
15°	1160	965	628	495	474	335
25°	1377	1141	573	426	419	609
35°	742	1176	503	376	384	479
45°	400	775	413	322	327	316
55°	272	421	291	248	259	244
65°	177	236	179	169	183	176
75°	91	112	86	85	98	97
85°	21	24	17	17	19	25
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	655.9	655.9	655.9	655.9	655.9	655.9	655.9	655.9	655.9	655.9	655.9
2.5°	706.1	705.4	703.9	705.1	702.6	699.1	698.8	695.6	686.4	685.7	683.2
5°	779.2	776.6	776.3	776.0	771.5	765.5	754.1	753.1	737.9	730.2	721.0
7.5°	867.5	866.5	864.0	861.1	846.2	838.9	828.1	814.1	796.3	779.2	768.4
10°	964.1	974.6	961.6	952.7	944.4	928.8	910.7	888.2	865.6	839.2	819.2
12.5°	1067.7	1071.5	1071.5	1063.2	1049.3	1023.5	987.9	962.5	942.2	893.9	876.7
15°	1159.8	1179.2	1166.8	1138.2	1138.9	1116.3	1074.4	1028.3	1003.8	965.4	912.9
17.5°	1264.1	1267.6	1263.8	1237.1	1224.0	1191.3	1153.5	1110.6	1064.5	1017.8	963.5
20°	1344.2	1342.2	1331.1	1318.7	1291.4	1267.3	1225.0	1175.7	1112.2	1066.4	1005.7
22.5°	1388.6	1385.1	1381.3	1371.5	1349.9	1323.5	1286.6	1231.7	1171.9	1104.6	1032.1
25°	1376.6	1380.7	1381.3	1378.5	1370.5	1355.0	1325.1	1282.2	1221.8	1140.8	1067.7
27.5°	1283.1	1293.6	1307.0	1315.9	1330.2	1339.7	1330.2	1303.2	1253.6	1181.1	1091.2
30°	1127.4	1114.7	1146.2	1185.9	1212.9	1260.6	1287.3	1288.9	1263.8	1203.7	1116.6
32.5°	911.4	932.0	941.5	992.7	1059.8	1114.7	1174.5	1227.5	1239.9	1205.0	1131.6
35°	741.7	759.1	784.6	810.0	873.5	928.2	1021.6	1103.0	1167.8	1176.4	1129.7
37.5°	616.5	626.6	642.2	669.2	712.7	780.4	854.5	960.3	1049.6	1112.5	1106.1
40°	522.4	524.9	543.1	562.4	596.1	649.5	714.7	805.5	918.0	1015.6	1056.3
42.5°	451.9	458.2	463.3	481.7	506.8	543.7	603.1	674.3	775.0	891.0	980.3
45°	400.4	406.7	411.5	423.9	443.0	470.0	512.2	580.9	659.4	775.3	882.4
47.5°	364.8	364.2	368.3	378.1	391.8	413.4	444.6	490.3	565.6	662.5	774.7
50°	326.0	331.1	332.4	339.7	349.9	364.8	389.6	427.1	486.2	568.8	669.9
52.5°	298.7	299.3	303.5	308.2	316.8	327.6	348.3	375.6	418.8	486.2	577.1
55°	272.0	272.0	275.5	279.6	284.7	295.2	309.5	331.1	366.4	421.0	497.9
57.5°	247.2	248.5	251.7	252.6	257.1	264.4	276.8	293.9	320.9	365.1	428.7
60°	222.4	225.3	225.0	227.5	231.3	236.7	246.9	260.3	283.8	317.4	368.9
62.5°	200.8	199.9	199.9	203.1	206.9	212.0	217.7	228.8	247.9	276.8	318.7
65°	176.7	176.0	178.3	180.2	181.4	185.3	190.3	200.5	213.9	236.1	270.1
67.5°	155.7	153.8	155.4	156.0	158.2	161.4	166.5	172.9	183.7	202.4	229.7
70°	134.1	132.5	132.2	132.8	134.7	137.0	140.5	146.5	156.3	170.6	189.4
72.5°	111.9	110.9	110.9	112.5	113.1	114.4	116.6	122.0	129.3	139.2	156.3
75°	90.9	90.9	90.9	91.2	92.2	93.4	95.3	98.2	104.2	111.9	123.6
77.5°	71.8	72.1	71.5	71.2	72.8	73.4	73.7	76.9	80.4	86.1	95.3
80°	53.4	51.8	52.4	53.4	54.0	54.3	55.3	55.9	58.8	61.6	67.7
82.5°	36.2	35.0	35.0	36.5	36.5	36.9	37.8	38.8	39.4	41.9	44.5
85°	21.0	21.0	21.3	21.3	21.6	21.3	22.2	22.6	22.6	24.2	26.1
87.5°	9.5	8.9	9.2	9.5	9.2	9.5	9.9	10.2	10.5	10.8	11.1
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°	60°	65°	70°	75°	80°	85°	90°	95°	100°	105°
0°	655.9	655.9	655.9	655.9	655.9	655.9	655.9	655.9	655.9	655.9	655.9
2.5°	681.3	678.7	676.2	671.8	667.9	662.5	661.0	659.0	653.3	648.2	644.4
5°	717.5	709.9	698.8	688.6	680.3	669.2	662.9	656.2	646.7	638.1	631.1
7.5°	752.2	738.8	723.2	706.4	690.2	674.6	662.2	651.1	638.7	626.6	617.4
10°	795.1	773.4	749.3	723.2	701.0	679.4	661.3	645.4	628.2	613.3	600.9
12.5°	844.0	809.4	773.8	740.7	713.4	681.3	658.4	637.1	617.1	598.4	584.1
15°	880.5	839.9	800.5	756.9	716.9	679.4	653.3	627.9	605.3	586.9	569.1
17.5°	916.8	872.3	822.1	769.6	722.6	679.4	643.8	616.5	588.8	566.6	549.4
20°	946.6	894.2	835.4	780.4	727.0	677.5	637.4	603.1	572.6	548.8	528.8
22.5°	972.4	908.8	847.5	787.7	726.7	672.4	625.7	590.1	556.4	533.2	511.6
25°	988.6	915.2	854.2	785.2	718.8	663.5	612.7	572.6	539.6	512.2	490.3
27.5°	1003.8	914.2	845.3	770.9	709.3	654.3	599.6	556.7	522.1	492.5	470.0
30°	1019.1	915.8	829.7	756.3	694.0	636.8	584.1	540.8	504.0	473.8	452.8
32.5°	1028.6	914.8	815.4	735.9	669.9	620.9	567.2	522.1	484.0	454.4	434.4
35°	1031.2	909.4	798.5	706.4	643.5	594.2	549.4	503.0	463.3	435.7	412.8
37.5°	1025.7	899.6	780.1	679.7	611.7	562.8	523.7	484.0	445.8	415.0	395.0
40°	1008.3	890.1	757.9	651.1	578.7	531.9	499.8	461.1	423.6	394.7	376.2
42.5°	974.9	870.7	733.4	619.3	544.3	497.6	468.7	437.9	402.9	376.2	357.8
45°	916.4	840.8	708.9	587.5	510.7	462.3	436.3	412.8	380.7	354.3	338.4
47.5°	841.8	800.5	673.7	554.2	475.4	428.7	401.3	382.0	356.9	335.6	320.0
50°	763.3	748.3	637.8	519.9	440.1	394.7	368.6	351.4	334.6	313.3	299.3
52.5°	672.7	688.0	595.8	484.3	404.2	359.7	335.6	322.9	307.9	291.4	279.6
55°	588.8	622.2	546.2	443.6	368.6	326.0	302.8	290.8	281.9	268.8	258.3
57.5°	507.5	550.1	494.8	402.6	333.7	296.5	273.6	259.9	254.2	246.9	238.3
60°	436.6	478.6	438.8	361.3	298.4	263.4	243.7	232.6	226.9	222.1	215.1
62.5°	373.4	416.0	384.2	319.4	263.7	232.0	215.4	204.6	200.5	198.6	192.9
65°	316.5	353.0	330.8	275.5	231.0	202.4	186.8	179.2	175.1	174.1	170.3
67.5°	267.2	295.5	278.4	236.7	200.5	174.5	160.8	154.1	150.6	150.3	147.1
70°	218.9	245.0	232.6	195.7	165.6	146.2	134.7	129.0	127.1	126.8	125.2
72.5°	181.4	197.7	188.4	159.2	137.6	120.4	112.8	106.8	104.5	105.2	104.2
75°	139.8	153.5	147.8	126.5	107.7	96.3	89.3	85.5	83.6	84.5	83.3
77.5°	106.8	116.3	110.6	94.4	82.3	73.7	68.3	65.8	63.9	63.9	63.2
80°	75.9	81.0	78.2	69.3	59.7	52.7	48.6	47.0	46.1	45.8	45.4
82.5°	48.6	52.7	49.3	43.9	38.1	34.6	32.7	30.5	29.9	30.2	29.9
85°	27.3	28.9	27.6	23.8	21.3	19.4	18.1	17.2	16.5	16.8	16.2
87.5°	11.8	12.1	11.1	9.9	9.2	8.3	8.3	7.6	7.0	7.0	6.7
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):

	110°	115°	120°	125°	130°	135°	140°	145°	150°	155°	160°
0°	655.9	655.9	655.9	655.9	655.9	655.9	655.9	655.9	655.9	655.9	655.9
2.5°	642.2	640.0	636.8	632.0	628.2	622.2	622.2	623.1	623.1	622.8	622.2
5°	625.4	620.6	614.9	608.2	601.2	594.2	593.0	590.4	588.5	587.2	585.6
7.5°	608.2	600.3	592.3	583.1	575.2	568.5	563.7	559.6	557.0	554.2	552.0
10°	590.7	580.2	570.4	560.5	549.7	541.2	535.8	531.9	529.1	526.5	525.3
12.5°	570.1	557.7	546.6	537.3	525.3	516.4	511.3	510.0	506.5	500.5	497.3
15°	550.1	538.9	525.9	511.6	505.9	495.1	489.0	486.2	484.3	480.1	478.9
17.5°	533.5	518.6	503.7	493.2	482.7	474.1	470.6	466.8	464.3	460.4	459.5
20°	512.9	499.8	486.5	475.1	463.9	454.4	451.5	449.0	446.5	444.9	443.6
22.5°	491.9	478.9	468.4	457.9	445.8	440.4	437.2	434.4	432.8	431.8	430.6
25°	472.5	461.1	448.7	439.2	429.6	425.5	423.6	422.0	420.7	419.1	418.8
27.5°	455.4	442.6	432.2	422.9	416.0	412.5	410.2	409.3	409.3	409.9	410.2
30°	435.7	424.2	416.0	408.3	402.0	398.8	398.5	398.5	399.7	400.1	400.7
32.5°	417.5	408.6	400.4	393.1	388.6	386.7	388.3	388.3	389.3	390.2	391.5
35°	400.1	391.8	385.5	379.1	375.0	375.9	376.6	377.2	378.8	380.7	382.0
37.5°	383.5	375.9	369.2	364.2	361.6	363.5	365.1	366.4	368.3	369.9	371.2
40°	365.4	360.0	353.7	349.2	349.9	350.8	352.1	353.7	355.3	356.2	357.5
42.5°	348.6	342.9	338.4	334.9	335.9	337.2	337.8	338.4	340.3	342.2	342.9
45°	331.4	327.0	322.5	320.3	320.9	321.6	322.2	323.2	324.8	326.0	326.3
47.5°	312.0	308.9	306.0	303.5	304.7	304.4	305.4	307.3	307.9	308.6	310.5
50°	293.6	290.8	287.3	286.6	286.6	286.6	286.9	289.5	289.5	290.8	292.0
52.5°	273.3	271.7	269.8	268.5	267.9	267.9	269.5	270.4	271.1	273.0	274.2
55°	253.3	251.4	249.4	248.5	247.9	248.5	251.0	251.7	253.3	254.2	255.2
57.5°	232.3	231.0	229.4	228.8	228.8	229.1	231.0	232.6	232.9	236.1	237.4
60°	211.6	209.4	208.1	208.1	207.5	210.4	209.7	212.9	213.5	215.4	217.7
62.5°	190.3	187.2	186.8	186.8	188.1	188.4	189.7	190.7	192.6	195.1	196.7
65°	167.1	165.6	167.8	167.5	166.8	168.7	168.7	170.3	172.2	174.5	177.9
67.5°	145.5	144.3	144.9	144.6	145.5	146.8	147.8	149.0	151.3	153.8	156.0
70°	123.6	124.6	123.0	124.2	125.2	125.5	126.2	128.1	130.6	132.2	134.7
72.5°	102.3	102.0	102.6	103.0	103.9	104.5	105.2	107.4	110.3	111.5	113.4
75°	82.0	81.7	82.6	82.6	84.2	84.8	85.5	86.4	89.0	90.9	92.5
77.5°	63.6	63.9	63.6	64.8	64.2	64.5	66.4	67.4	67.7	71.8	72.5
80°	45.1	45.8	46.1	46.4	46.7	46.1	48.3	49.3	49.3	51.5	53.1
82.5°	29.2	29.6	30.5	30.8	30.8	31.8	31.5	32.1	33.0	33.7	35.9
85°	16.2	17.2	17.5	17.2	17.5	16.8	17.8	18.1	18.4	18.4	18.4
87.5°	6.4	6.7	6.4	6.7	6.4	6.7	6.7	6.0	6.0	7.0	5.7
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: P273749

CATALOG NUMBER: 4RCG-4-56D-L935-A

CANDELA DISTRIBUTION (continued):

	165°	170°	175°	180°
0°	655.9	655.9	655.9	655.9
2.5°	620.0	619.6	621.9	620.3
5°	583.7	584.7	581.5	581.5
7.5°	551.0	549.7	550.1	547.8
10°	521.5	519.5	518.9	519.2
12.5°	497.0	497.0	491.9	491.9
15°	478.9	472.8	472.2	474.1
17.5°	458.9	455.4	455.7	455.0
20°	443.6	441.7	441.4	439.2
22.5°	429.6	429.3	429.6	427.1
25°	418.5	420.1	418.8	418.8
27.5°	410.9	410.9	409.9	409.9
30°	402.0	401.7	402.3	402.3
32.5°	393.1	393.7	393.7	394.0
35°	383.9	384.2	385.1	384.5
37.5°	371.8	373.4	373.1	373.7
40°	357.8	358.8	358.4	358.4
42.5°	343.5	344.1	343.2	342.6
45°	327.6	327.0	327.9	326.7
47.5°	310.1	310.5	310.8	312.0
50°	292.7	294.6	294.6	294.3
52.5°	275.5	276.1	277.7	277.7
55°	257.7	258.3	259.0	259.3
57.5°	239.6	239.3	240.5	240.9
60°	220.2	220.2	222.8	223.7
62.5°	199.6	200.8	203.4	201.5
65°	179.5	182.1	181.8	183.0
67.5°	158.6	160.2	162.7	162.7
70°	137.3	138.9	140.1	141.1
72.5°	116.6	117.3	120.8	118.8
75°	94.7	96.9	98.8	97.9
77.5°	73.7	76.6	77.2	76.3
80°	55.3	55.0	56.9	56.6
82.5°	36.9	36.5	37.2	37.5
85°	19.7	20.7	19.4	19.1
87.5°	5.7	5.7	5.4	5.1
90°	0.0	0.0	0.0	0.0

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