

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: P273752

Luminaire Tested: **4RCG-4-56D-L940-A**

Issue Date: 3/3/2020

Test Information

Test Method: LM-41-14
Report Number: P273752
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-L940-A
Description: RCG SERIES DIRECT RECESSED LED LUMINAIRE WITH ASYMMETRIC FLUSH LENS
Light Source: (168) 4000K CCT, 90 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

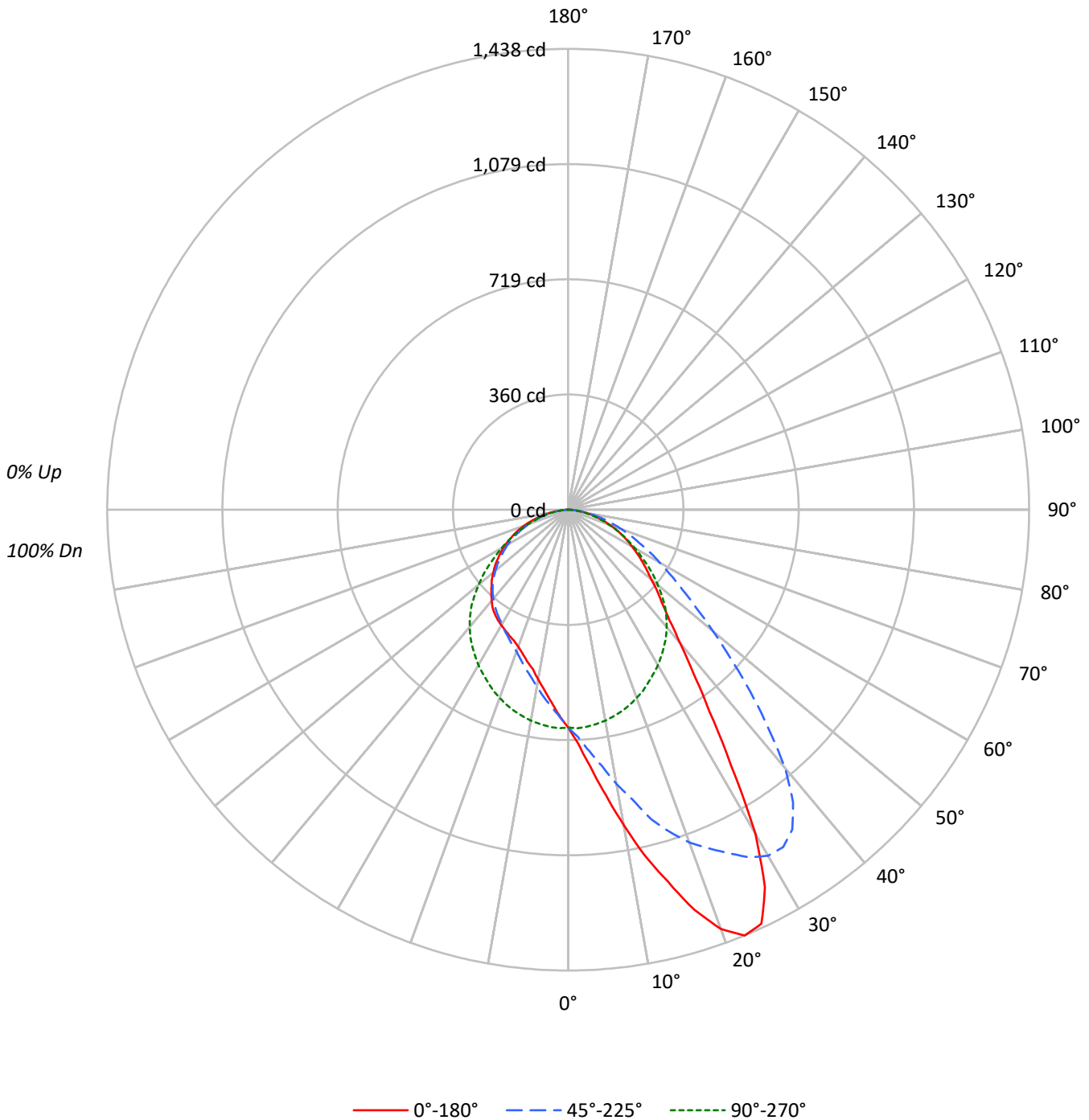
Lumens per Lamp: N/A
Luminaire Lumens: 2050.2 lumens
Efficiency: N/A
Efficacy: 110.2 lumens/watt
Spacing Criteria (0/90/45): 1.37 / 1.23 / 1.5
Luminous Opening: Rectangular (W 3.88' x L: 0.23' x H: 0')
CIE Type: Direct

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°	8234	8234	8234
5°	9819	8269	7329
10°	12290	8227	6619
15°	15074	8160	6161
20°	17957	8057	5867
25°	19068	7931	5802
30°	16342	7839	5831
35°	11366	7709	5892
40°	8560	7556	5874
45°	7109	7328	5799
50°	6368	6864	5746
55°	5953	6363	5674
60°	5585	5840	5617
65°	5249	5323	5438
70°	4923	4735	5178
75°	4407	4145	4749
80°	3860	3399	4090
85°	3018	2476	2740



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	66.8	3.3
10°-20°	214.6	10.5
20°-30°	361.0	17.6
30°-40°	408.0	19.9
40°-50°	365.5	17.8
50°-60°	295.0	14.4
60°-70°	205.6	10.0
70°-80°	107.9	5.3
80°-90°	25.9	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°	642.4	31.3
0°-40°	1050.4	51.2
0°-60°	1710.9	83.5
0°-90°	2050.2	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2050.2	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	679	679	679	679	679	
5°	807	756	680	615	602	83
15°	1201	1000	650	513	491	347
25°	1426	1182	593	441	434	630
35°	768	1218	521	389	398	496
45°	415	803	428	333	338	327
55°	282	436	301	257	268	253
65°	183	244	186	175	190	182
75°	94	116	88	88	101	101
85°	22	25	18	17	20	26
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°	679.3	679.3	679.3	679.3	679.3	679.3	679.3	679.3	679.3	679.3	679.3
2.5°	731.3	730.6	729.0	730.3	727.6	724.0	723.7	720.4	710.9	710.2	707.6
5°	807.0	804.3	804.0	803.7	799.1	792.8	781.0	780.0	764.2	756.3	746.7
7.5°	898.4	897.5	894.8	891.9	876.4	868.8	857.6	843.2	824.7	807.0	795.8
10°	998.5	1009.4	995.9	986.6	978.1	962.0	943.2	919.8	896.5	869.2	848.4
12.5°	1105.8	1109.7	1109.7	1101.2	1086.7	1060.0	1023.2	996.8	975.8	925.8	908.0
15°	1201.2	1221.3	1208.5	1178.8	1179.5	1156.1	1112.7	1065.0	1039.6	999.8	945.5
17.5°	1309.2	1312.8	1308.8	1281.2	1267.7	1233.8	1194.6	1150.2	1102.5	1054.1	997.8
20°	1392.1	1390.1	1378.6	1365.8	1337.5	1312.5	1268.7	1217.7	1151.9	1104.5	1041.6
22.5°	1438.2	1434.5	1430.6	1420.4	1398.0	1370.7	1332.5	1275.6	1213.7	1144.0	1068.9
25°	1425.7	1429.9	1430.6	1427.6	1419.4	1403.3	1372.3	1327.9	1265.4	1181.5	1105.8
27.5°	1328.9	1339.8	1353.6	1362.8	1377.6	1387.5	1377.6	1349.6	1298.3	1223.3	1130.1
30°	1167.6	1154.5	1187.1	1228.2	1256.2	1305.5	1333.2	1334.8	1308.8	1246.6	1156.5
32.5°	943.9	965.3	975.1	1028.1	1097.6	1154.5	1216.4	1271.3	1284.2	1247.9	1171.9
35°	768.1	786.2	812.5	838.9	904.7	961.3	1058.1	1142.3	1209.4	1218.3	1170.0
37.5°	638.5	649.0	665.1	693.1	738.2	808.3	885.0	994.5	1087.0	1152.2	1145.6
40°	541.0	543.7	562.4	582.5	617.4	672.7	740.1	834.3	950.8	1051.8	1093.9
42.5°	468.0	474.6	479.8	498.9	524.9	563.1	624.6	698.4	802.7	922.8	1015.3
45°	414.7	421.2	426.2	439.0	458.8	486.7	530.5	601.6	682.9	803.0	913.9
47.5°	377.8	377.1	381.4	391.6	405.8	428.2	460.4	507.8	585.8	686.2	802.3
50°	337.7	342.9	344.2	351.8	362.3	377.8	403.5	442.3	503.5	589.1	693.7
52.5°	309.4	310.0	314.3	319.2	328.1	339.3	360.7	389.0	433.8	503.5	597.6
55°	281.7	281.7	285.3	289.6	294.9	305.7	320.5	342.9	379.5	436.1	515.7
57.5°	256.0	257.4	260.6	261.6	266.2	273.8	286.6	304.4	332.4	378.1	444.0
60°	230.4	233.3	233.0	235.6	239.6	245.2	255.7	269.5	293.9	328.8	382.1
62.5°	208.0	207.0	207.0	210.3	214.2	219.5	225.4	237.0	256.7	286.6	330.1
65°	183.0	182.3	184.6	186.6	187.9	191.9	197.1	207.7	221.5	244.5	279.7
67.5°	161.3	159.3	160.9	161.6	163.9	167.2	172.4	179.0	190.2	209.6	237.9
70°	138.9	137.2	136.9	137.6	139.5	141.8	145.5	151.7	161.9	176.7	196.1
72.5°	115.8	114.9	114.9	116.5	117.2	118.5	120.8	126.4	133.9	144.1	161.9
75°	94.1	94.1	94.1	94.5	95.4	96.8	98.7	101.7	107.9	115.8	128.0
77.5°	74.4	74.7	74.0	73.7	75.4	76.0	76.4	79.6	83.3	89.2	98.7
80°	55.3	53.6	54.3	55.3	55.9	56.3	57.3	57.9	60.9	63.8	70.1
82.5°	37.5	36.2	36.2	37.8	37.8	38.2	39.2	40.2	40.8	43.4	46.1
85°	21.7	21.7	22.0	22.0	22.4	22.0	23.0	23.4	23.4	25.0	27.0
87.5°	9.9	9.2	9.5	9.9	9.5	9.9	10.2	10.5	10.9	11.2	11.5
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°	679.3	679.3	679.3	679.3	679.3	679.3	679.3	679.3	679.3	679.3	679.3
2.5°	705.6	703.0	700.3	695.7	691.8	686.2	684.5	682.6	676.6	671.4	667.4
5°	743.1	735.2	723.7	713.2	704.6	693.1	686.5	679.6	669.7	660.8	653.6
7.5°	779.0	765.2	749.0	731.6	714.8	698.7	685.8	674.3	661.5	649.0	639.4
10°	823.4	801.0	776.0	749.0	726.0	703.6	684.9	668.4	650.6	635.2	622.3
12.5°	874.1	838.2	801.4	767.1	738.8	705.6	681.9	659.8	639.1	619.7	604.9
15°	911.9	869.8	829.0	783.9	742.5	703.6	676.6	650.3	626.9	607.8	589.4
17.5°	949.5	903.4	851.4	797.1	748.4	703.6	666.8	638.5	609.8	586.8	569.0
20°	980.4	926.1	865.2	808.3	753.0	701.6	660.2	624.6	593.0	568.4	547.6
22.5°	1007.0	941.2	877.7	815.8	752.7	696.4	648.0	611.1	576.3	552.2	529.9
25°	1023.8	947.8	884.6	813.2	744.4	687.2	634.5	593.0	558.8	530.5	507.8
27.5°	1039.6	946.8	875.4	798.4	734.6	677.6	621.0	576.6	540.7	510.1	486.7
30°	1055.4	948.5	859.3	783.3	718.8	659.5	604.9	560.1	522.0	490.7	469.0
32.5°	1065.3	947.5	844.5	762.2	693.7	643.1	587.4	540.7	501.2	470.6	449.9
35°	1067.9	941.9	827.0	731.6	666.4	615.4	569.0	521.0	479.8	451.2	427.5
37.5°	1062.3	931.7	807.9	703.9	633.5	582.8	542.4	501.2	461.7	429.8	409.1
40°	1044.2	921.8	784.9	674.3	599.3	550.9	517.7	477.5	438.7	408.7	389.7
42.5°	1009.7	901.7	759.6	641.4	563.7	515.4	485.4	453.5	417.3	389.7	370.6
45°	949.1	870.8	734.2	608.5	528.9	478.8	451.9	427.5	394.3	366.9	350.5
47.5°	871.8	829.0	697.7	574.0	492.3	444.0	415.7	395.6	369.6	347.5	331.4
50°	790.5	775.0	660.5	538.4	455.8	408.7	381.8	364.0	346.5	324.5	310.0
52.5°	696.7	712.5	617.1	501.5	418.6	372.5	347.5	334.4	318.9	301.8	289.6
55°	609.8	644.4	565.7	459.4	381.8	337.7	313.6	301.1	291.9	278.4	267.6
57.5°	525.6	569.7	512.4	417.0	345.6	307.1	283.4	269.2	263.3	255.7	246.8
60°	452.2	495.6	454.5	374.2	309.0	272.8	252.4	240.9	235.0	230.0	222.8
62.5°	386.7	430.8	397.9	330.7	273.2	240.2	223.1	211.9	207.7	205.7	199.8
65°	327.8	365.6	342.6	285.3	239.3	209.6	193.5	185.6	181.3	180.3	176.4
67.5°	276.8	306.1	288.3	245.2	207.7	180.7	166.5	159.6	156.0	155.7	152.4
70°	226.8	253.7	240.9	202.7	171.5	151.4	139.5	133.6	131.6	131.3	129.7
72.5°	187.9	204.7	195.2	164.9	142.5	124.7	116.8	110.6	108.3	108.9	107.9
75°	144.8	159.0	153.0	131.0	111.6	99.7	92.5	88.5	86.6	87.5	86.2
77.5°	110.6	120.5	114.5	97.7	85.2	76.4	70.8	68.1	66.1	66.1	65.5
80°	78.7	83.9	81.0	71.7	61.9	54.6	50.4	48.7	47.7	47.4	47.1
82.5°	50.4	54.6	51.0	45.4	39.5	35.9	33.9	31.6	30.9	31.3	30.9
85°	28.3	29.9	28.6	24.7	22.0	20.1	18.8	17.8	17.1	17.4	16.8
87.5°	12.2	12.5	11.5	10.2	9.5	8.6	8.6	7.9	7.2	7.2	6.9
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°	679.3	679.3	679.3	679.3	679.3	679.3	679.3	679.3	679.3	679.3	679.3
2.5°	665.1	662.8	659.5	654.6	650.6	644.4	644.4	645.4	645.4	645.0	644.4
5°	647.7	642.7	636.8	629.9	622.7	615.4	614.1	611.5	609.5	608.2	606.5
7.5°	629.9	621.7	613.4	603.9	595.7	588.8	583.8	579.5	576.9	574.0	571.6
10°	611.8	600.9	590.7	580.5	569.3	560.5	554.9	550.9	548.0	545.3	544.0
12.5°	590.4	577.6	566.1	556.5	544.0	534.8	529.5	528.2	524.6	518.3	515.0
15°	569.7	558.2	544.7	529.9	523.9	512.7	506.5	503.5	501.5	497.3	496.0
17.5°	552.6	537.1	521.6	510.8	499.9	491.0	487.4	483.4	480.8	476.9	475.9
20°	531.2	517.7	503.9	492.0	480.5	470.6	467.7	465.0	462.4	460.7	459.4
22.5°	509.4	496.0	485.1	474.2	461.7	456.1	452.8	449.9	448.2	447.2	445.9
25°	489.4	477.5	464.7	454.8	444.9	440.7	438.7	437.0	435.7	434.1	433.8
27.5°	471.6	458.4	447.6	438.0	430.8	427.2	424.9	423.9	423.9	424.5	424.9
30°	451.2	439.3	430.8	422.9	416.3	413.0	412.7	412.7	414.0	414.3	415.0
32.5°	432.4	423.2	414.7	407.1	402.5	400.5	402.2	402.2	403.1	404.1	405.5
35°	414.3	405.8	399.2	392.6	388.3	389.3	390.0	390.6	392.3	394.3	395.6
37.5°	397.2	389.3	382.4	377.1	374.5	376.5	378.1	379.5	381.4	383.1	384.4
40°	378.5	372.9	366.3	361.7	362.3	363.3	364.6	366.3	367.9	368.9	370.2
42.5°	361.0	355.1	350.5	346.9	347.9	349.2	349.8	350.5	352.5	354.4	355.1
45°	343.3	338.6	334.0	331.7	332.4	333.0	333.7	334.7	336.3	337.7	338.0
47.5°	323.2	319.9	316.9	314.3	315.6	315.3	316.3	318.2	318.9	319.6	321.5
50°	304.1	301.1	297.5	296.8	296.8	296.8	297.2	299.8	299.8	301.1	302.4
52.5°	283.0	281.4	279.4	278.1	277.4	277.4	279.1	280.1	280.7	282.7	284.0
55°	262.3	260.3	258.3	257.4	256.7	257.4	260.0	260.6	262.3	263.3	264.3
57.5°	240.6	239.3	237.6	237.0	237.0	237.3	239.3	240.9	241.2	244.5	245.8
60°	219.2	216.9	215.6	215.6	214.9	217.9	217.2	220.5	221.2	223.1	225.4
62.5°	197.1	193.8	193.5	193.5	194.8	195.2	196.5	197.5	199.4	202.1	203.7
65°	173.1	171.5	173.8	173.4	172.8	174.8	174.8	176.4	178.4	180.7	184.3
67.5°	150.7	149.4	150.1	149.7	150.7	152.0	153.0	154.3	156.7	159.3	161.6
70°	128.0	129.0	127.4	128.7	129.7	130.0	130.7	132.6	135.3	136.9	139.5
72.5°	106.0	105.6	106.3	106.6	107.6	108.3	108.9	111.2	114.2	115.5	117.5
75°	84.9	84.6	85.6	85.6	87.2	87.9	88.5	89.5	92.1	94.1	95.8
77.5°	65.8	66.1	65.8	67.1	66.5	66.8	68.8	69.8	70.1	74.4	75.0
80°	46.7	47.4	47.7	48.0	48.4	47.7	50.0	51.0	51.0	53.3	55.0
82.5°	30.3	30.6	31.6	31.9	31.9	32.9	32.6	33.2	34.2	34.9	37.2
85°	16.8	17.8	18.1	17.8	18.1	17.4	18.4	18.8	19.1	19.1	19.1
87.5°	6.6	6.9	6.6	6.9	6.6	6.9	6.9	6.3	6.3	7.2	5.9
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: P273752

CATALOG NUMBER: 4RCG-4-56D-L940-A

CANDELA DISTRIBUTION (continued):

	165°	170°	175°	180°
0°	679.3	679.3	679.3	679.3
2.5°	642.1	641.7	644.0	642.4
5°	604.6	605.5	602.3	602.3
7.5°	570.7	569.3	569.7	567.4
10°	540.1	538.1	537.4	537.8
12.5°	514.7	514.7	509.4	509.4
15°	496.0	489.7	489.0	491.0
17.5°	475.2	471.6	471.9	471.3
20°	459.4	457.4	457.1	454.8
22.5°	444.9	444.6	444.9	442.3
25°	433.4	435.1	433.8	433.8
27.5°	425.5	425.5	424.5	424.5
30°	416.3	416.0	416.6	416.6
32.5°	407.1	407.8	407.8	408.1
35°	397.6	397.9	398.9	398.2
37.5°	385.0	386.7	386.4	387.0
40°	370.6	371.6	371.2	371.2
42.5°	355.8	356.4	355.4	354.8
45°	339.3	338.6	339.6	338.3
47.5°	321.2	321.5	321.9	323.2
50°	303.1	305.1	305.1	304.7
52.5°	285.3	286.0	287.6	287.6
55°	266.9	267.6	268.2	268.5
57.5°	248.1	247.8	249.1	249.5
60°	228.1	228.1	230.7	231.7
62.5°	206.7	208.0	210.6	208.6
65°	185.9	188.6	188.2	189.6
67.5°	164.2	165.9	168.5	168.5
70°	142.2	143.8	145.1	146.1
72.5°	120.8	121.4	125.1	123.1
75°	98.1	100.4	102.4	101.4
77.5°	76.4	79.3	80.0	79.0
80°	57.3	56.9	58.9	58.6
82.5°	38.2	37.8	38.5	38.8
85°	20.4	21.4	20.1	19.7
87.5°	5.9	5.9	5.6	5.3
90°	0.0	0.0	0.0	0.0

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