

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: P273746

Luminaire Tested: **4RCG-4-56D-L930-A**

Issue Date: 3/3/2020

Test Information

Test Method: LM-41-14
Report Number: P273746
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-L930-A
Description: RCG SERIES DIRECT RECESSED LED LUMINAIRE WITH ASYMMETRIC FLUSH LENS
Light Source: (168) 3000K CCT, 90 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

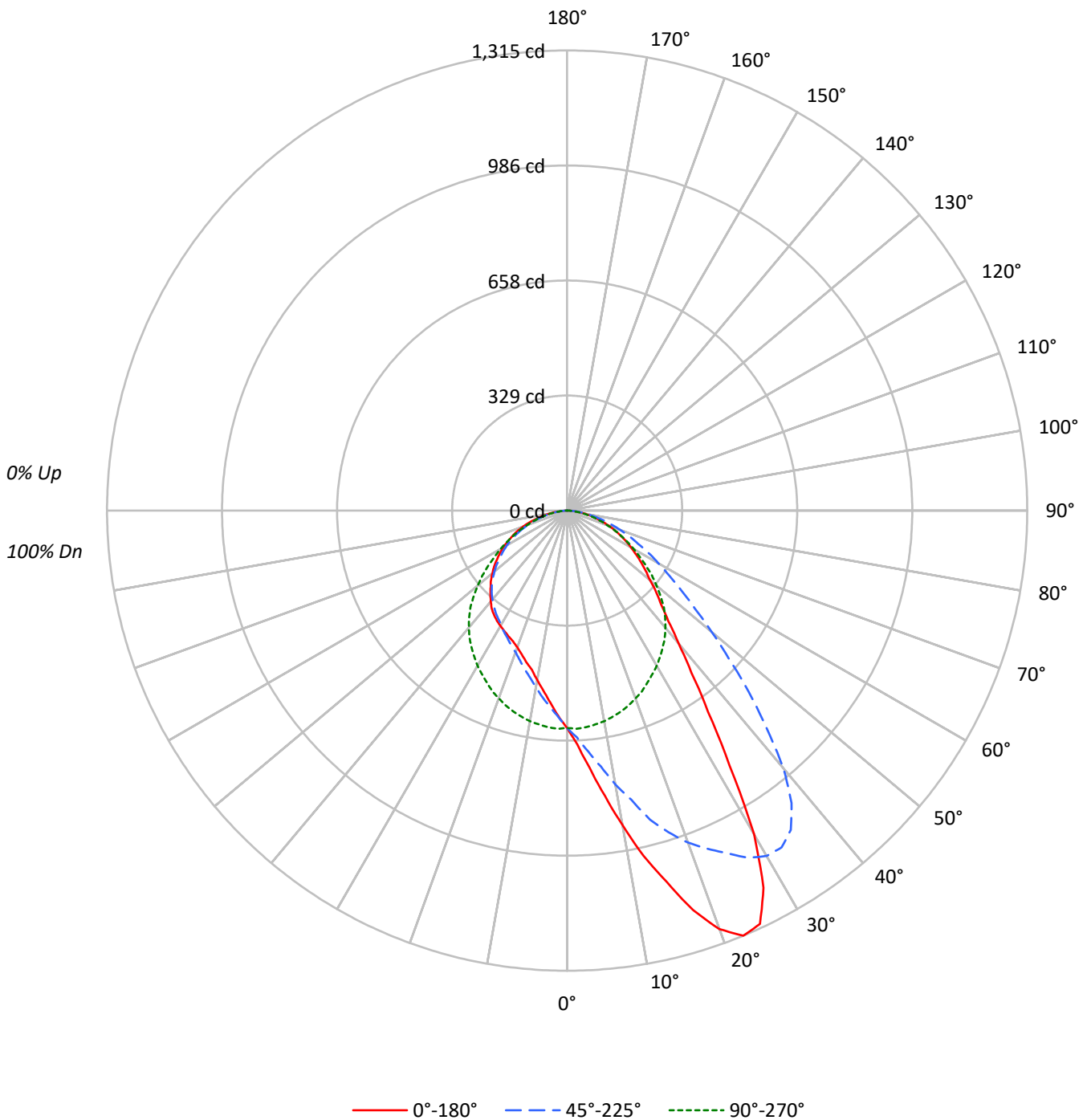
Lumens per Lamp: N/A
Luminaire Lumens: 1874.5 lumens
Efficiency: N/A
Efficacy: 100.8 lumens/watt
Spacing Criteria (0/90/45): 1.37 / 1.23 / 1.5
Luminous Opening: Rectangular (W 3.88' x L: 0.23' x H: 0')
CIE Type: Direct

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°	7528	7528	7528
5°	8977	7561	6699
10°	11236	7522	6052
15°	13782	7462	5633
20°	16418	7367	5363
25°	17433	7252	5304
30°	14943	7168	5331
35°	10392	7048	5388
40°	7828	6908	5370
45°	6499	6701	5302
50°	5821	6276	5254
55°	5444	5818	5188
60°	5105	5341	5135
65°	4798	4867	4970
70°	4501	4331	4735
75°	4032	3789	4341
80°	3532	3106	3741
85°	2768	2253	2517



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	61.1	3.3
10°-20°	196.2	10.5
20°-30°	330.1	17.6
30°-40°	373.1	19.9
40°-50°	334.2	17.8
50°-60°	269.7	14.4
60°-70°	187.9	10.0
70°-80°	98.6	5.3
80°-90°	23.6	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°	587.4	31.3
0°-40°	960.4	51.2
0°-60°	1564.3	83.5
0°-90°	1874.5	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1874.5	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	621	621	621	621	621	
5°	738	692	621	563	551	76
15°	1098	914	595	469	449	317
25°	1304	1080	542	403	397	576
35°	702	1114	476	356	364	453
45°	379	734	391	304	309	299
55°	258	399	275	235	246	231
65°	167	224	170	160	173	167
75°	86	106	81	80	93	92
85°	20	23	16	16	18	24
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°	621.1	621.1	621.1	621.1	621.1	621.1	621.1	621.1	621.1	621.1	621.1
2.5°	668.6	668.0	666.5	667.7	665.3	662.0	661.7	658.7	649.9	649.3	646.9
5°	737.8	735.4	735.1	734.8	730.6	724.9	714.0	713.1	698.7	691.5	682.7
7.5°	821.5	820.6	818.1	815.4	801.3	794.4	784.1	770.9	754.1	737.8	727.6
10°	912.9	922.9	910.5	902.1	894.3	879.5	862.4	841.0	819.7	794.7	775.7
12.5°	1011.0	1014.6	1014.6	1006.8	993.6	969.2	935.5	911.4	892.2	846.4	830.2
15°	1098.3	1116.6	1104.9	1077.8	1078.4	1057.1	1017.3	973.7	950.5	914.1	864.5
17.5°	1197.0	1200.3	1196.7	1171.4	1159.1	1128.1	1092.3	1051.6	1008.0	963.8	912.3
20°	1272.8	1271.0	1260.5	1248.7	1222.9	1200.0	1160.0	1113.3	1053.1	1009.8	952.3
22.5°	1314.9	1311.6	1308.0	1298.7	1278.2	1253.2	1218.3	1166.3	1109.7	1045.9	977.3
25°	1303.5	1307.4	1308.0	1305.3	1297.8	1283.0	1254.8	1214.1	1157.0	1080.2	1011.0
27.5°	1215.0	1225.0	1237.6	1246.0	1259.6	1268.6	1259.6	1234.0	1187.0	1118.4	1033.3
30°	1067.6	1055.6	1085.3	1123.0	1148.5	1193.7	1218.9	1220.4	1196.7	1139.8	1057.4
32.5°	863.0	882.5	891.6	940.0	1003.5	1055.6	1112.1	1162.4	1174.1	1141.0	1071.5
35°	702.3	718.8	742.9	767.0	827.2	878.9	967.4	1044.4	1105.8	1113.9	1069.7
37.5°	583.7	593.4	608.1	633.7	674.9	739.0	809.1	909.3	993.9	1053.4	1047.4
40°	494.7	497.1	514.2	532.6	564.5	615.0	676.7	762.8	869.3	961.7	1000.2
42.5°	427.9	433.9	438.7	456.2	479.9	514.8	571.1	638.5	733.9	843.7	928.3
45°	379.1	385.2	389.7	401.4	419.5	445.0	485.1	550.0	624.4	734.2	835.6
47.5°	345.4	344.8	348.7	358.1	371.0	391.5	421.0	464.3	535.6	627.4	733.6
50°	308.7	313.5	314.7	321.7	331.3	345.4	368.9	404.4	460.4	538.6	634.3
52.5°	282.8	283.4	287.4	291.9	300.0	310.2	329.8	355.7	396.6	460.4	546.4
55°	257.6	257.6	260.9	264.8	269.6	279.5	293.1	313.5	346.9	398.7	471.5
57.5°	234.1	235.3	238.3	239.2	243.4	250.3	262.1	278.3	303.9	345.7	405.9
60°	210.6	213.3	213.0	215.4	219.1	224.2	233.8	246.4	268.7	300.6	349.3
62.5°	190.2	189.3	189.3	192.3	195.9	200.7	206.1	216.6	234.7	262.1	301.8
65°	167.3	166.7	168.8	170.6	171.8	175.4	180.2	189.9	202.5	223.6	255.8
67.5°	147.4	145.6	147.1	147.7	149.8	152.9	157.7	163.7	173.9	191.7	217.6
70°	127.0	125.5	125.2	125.8	127.6	129.7	133.0	138.7	148.0	161.6	179.3
72.5°	105.9	105.0	105.0	106.5	107.1	108.3	110.4	115.5	122.5	131.8	148.0
75°	86.1	86.1	86.1	86.4	87.3	88.5	90.3	93.0	98.7	105.9	117.0
77.5°	68.0	68.3	67.7	67.4	68.9	69.5	69.8	72.8	76.1	81.5	90.3
80°	50.6	49.0	49.6	50.6	51.2	51.5	52.4	53.0	55.7	58.4	64.1
82.5°	34.3	33.1	33.1	34.6	34.6	34.9	35.8	36.7	37.3	39.7	42.1
85°	19.9	19.9	20.2	20.2	20.5	20.2	21.1	21.4	21.4	22.9	24.7
87.5°	9.0	8.4	8.7	9.0	8.7	9.0	9.3	9.6	9.9	10.2	10.5
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°	621.1	621.1	621.1	621.1	621.1	621.1	621.1	621.1	621.1	621.1	621.1
2.5°	645.1	642.7	640.3	636.1	632.5	627.4	625.9	624.1	618.6	613.8	610.2
5°	679.4	672.2	661.7	652.0	644.2	633.7	627.7	621.4	612.3	604.2	597.6
7.5°	712.2	699.6	684.8	668.9	653.6	638.8	627.1	616.5	604.8	593.4	584.6
10°	752.9	732.4	709.5	684.8	663.8	643.3	626.2	611.1	594.9	580.7	569.0
12.5°	799.2	766.4	732.7	701.4	675.5	645.1	623.5	603.3	584.3	566.6	553.1
15°	833.8	795.3	758.0	716.7	678.8	643.3	618.6	594.6	573.2	555.8	538.9
17.5°	868.1	826.0	778.4	728.8	684.2	643.3	609.6	583.7	557.6	536.5	520.3
20°	896.4	846.7	791.1	739.0	688.5	641.5	603.6	571.1	542.2	519.7	500.7
22.5°	920.8	860.6	802.5	745.9	688.2	636.7	592.5	558.8	526.9	504.9	484.4
25°	936.1	866.6	808.8	743.5	680.6	628.3	580.1	542.2	510.9	485.1	464.3
27.5°	950.5	865.7	800.4	730.0	671.6	619.6	567.8	527.2	494.4	466.4	445.0
30°	965.0	867.2	785.6	716.1	657.2	603.0	553.1	512.1	477.2	448.6	428.8
32.5°	974.0	866.3	772.1	696.9	634.3	588.0	537.1	494.4	458.3	430.3	411.3
35°	976.4	861.2	756.2	668.9	609.3	562.7	520.3	476.3	438.7	412.5	390.9
37.5°	971.3	851.8	738.7	643.6	579.2	532.9	495.9	458.3	422.2	393.0	374.0
40°	954.8	842.8	717.6	616.5	547.9	503.7	473.3	436.6	401.1	373.7	356.3
42.5°	923.2	824.5	694.5	586.5	515.4	471.2	443.8	414.6	381.5	356.3	338.8
45°	867.8	796.2	671.3	556.4	483.5	437.8	413.1	390.9	360.5	335.5	320.5
47.5°	797.1	758.0	637.9	524.8	450.1	405.9	380.0	361.7	337.9	317.8	303.0
50°	722.8	708.6	603.9	492.3	416.7	373.7	349.0	332.8	316.8	296.7	283.4
52.5°	637.0	651.4	564.2	458.6	382.7	340.6	317.8	305.7	291.6	275.9	264.8
55°	557.6	589.2	517.2	420.1	349.0	308.7	286.8	275.3	266.9	254.6	244.6
57.5°	480.5	520.9	468.5	381.2	315.9	280.7	259.1	246.1	240.7	233.8	225.7
60°	413.4	453.2	415.5	342.1	282.5	249.4	230.8	220.3	214.8	210.3	203.7
62.5°	353.6	393.9	363.8	302.4	249.7	219.7	204.0	193.8	189.9	188.1	182.6
65°	299.7	334.3	313.2	260.9	218.8	191.7	176.9	169.7	165.8	164.9	161.3
67.5°	253.1	279.8	263.6	224.2	189.9	165.2	152.3	145.9	142.6	142.3	139.3
70°	207.3	232.0	220.3	185.4	156.8	138.4	127.6	122.2	120.4	120.1	118.6
72.5°	171.8	187.2	178.4	150.8	130.3	114.0	106.8	101.1	99.0	99.6	98.7
75°	132.4	145.3	139.9	119.8	102.0	91.2	84.6	80.9	79.1	80.0	78.8
77.5°	101.1	110.1	104.7	89.4	77.9	69.8	64.7	62.3	60.5	60.5	59.9
80°	71.9	76.7	74.0	65.6	56.6	49.9	46.0	44.5	43.6	43.3	43.0
82.5°	46.0	49.9	46.6	41.5	36.1	32.8	31.0	28.9	28.3	28.6	28.3
85°	25.9	27.4	26.2	22.6	20.2	18.4	17.2	16.2	15.6	15.9	15.3
87.5°	11.1	11.4	10.5	9.3	8.7	7.8	7.8	7.2	6.6	6.6	6.3
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°	621.1	621.1	621.1	621.1	621.1	621.1	621.1	621.1	621.1	621.1	621.1
2.5°	608.1	606.0	603.0	598.5	594.9	589.2	589.2	590.1	590.1	589.8	589.2
5°	592.2	587.7	582.2	575.9	569.3	562.7	561.5	559.1	557.3	556.1	554.6
7.5°	575.9	568.4	560.9	552.2	544.6	538.3	533.8	529.9	527.5	524.8	522.7
10°	559.4	549.4	540.1	530.8	520.6	512.4	507.3	503.7	501.0	498.6	497.4
12.5°	539.8	528.1	517.5	508.8	497.4	489.0	484.1	482.9	479.6	473.9	470.9
15°	520.9	510.3	498.0	484.4	479.0	468.8	463.1	460.4	458.6	454.7	453.5
17.5°	505.2	491.1	476.9	467.0	457.1	448.9	445.6	442.0	439.6	436.0	435.1
20°	485.7	473.3	460.7	449.8	439.3	430.3	427.6	425.2	422.8	421.3	420.1
22.5°	465.8	453.5	443.5	433.6	422.2	417.0	414.0	411.3	409.8	408.9	407.7
25°	447.4	436.6	424.9	415.8	406.8	402.9	401.1	399.6	398.4	396.9	396.6
27.5°	431.2	419.2	409.2	400.5	393.9	390.6	388.5	387.6	387.6	388.2	388.5
30°	412.5	401.7	393.9	386.7	380.6	377.6	377.3	377.3	378.5	378.8	379.4
32.5°	395.4	387.0	379.1	372.2	368.0	366.2	367.7	367.7	368.6	369.5	370.7
35°	378.8	371.0	365.0	359.0	355.1	356.0	356.6	357.2	358.7	360.5	361.7
37.5°	363.2	356.0	349.6	344.8	342.4	344.2	345.7	346.9	348.7	350.2	351.5
40°	346.0	340.9	334.9	330.7	331.3	332.2	333.4	334.9	336.4	337.3	338.5
42.5°	330.1	324.7	320.5	317.1	318.1	319.3	319.9	320.5	322.3	324.1	324.7
45°	313.8	309.6	305.4	303.3	303.9	304.5	305.1	306.0	307.5	308.7	309.0
47.5°	295.5	292.5	289.8	287.4	288.6	288.3	289.2	291.0	291.6	292.2	294.0
50°	278.0	275.3	272.0	271.4	271.4	271.4	271.7	274.1	274.1	275.3	276.5
52.5°	258.8	257.3	255.5	254.3	253.7	253.7	255.2	256.1	256.7	258.5	259.7
55°	239.8	238.0	236.2	235.3	234.7	235.3	237.7	238.3	239.8	240.7	241.6
57.5°	220.0	218.8	217.2	216.6	216.6	216.9	218.8	220.3	220.6	223.6	224.8
60°	200.4	198.3	197.1	197.1	196.5	199.2	198.6	201.6	202.2	204.0	206.1
62.5°	180.2	177.2	176.9	176.9	178.1	178.4	179.6	180.5	182.3	184.8	186.3
65°	158.3	156.8	158.9	158.6	158.0	159.8	159.8	161.3	163.1	165.2	168.5
67.5°	137.8	136.6	137.2	136.9	137.8	139.0	139.9	141.1	143.2	145.6	147.7
70°	117.0	118.0	116.4	117.7	118.6	118.9	119.5	121.3	123.7	125.2	127.6
72.5°	96.9	96.6	97.2	97.5	98.4	99.0	99.6	101.7	104.4	105.6	107.4
75°	77.6	77.3	78.2	78.2	79.7	80.3	80.9	81.8	84.3	86.1	87.6
77.5°	60.2	60.5	60.2	61.4	60.8	61.1	62.9	63.8	64.1	68.0	68.6
80°	42.7	43.3	43.6	43.9	44.2	43.6	45.7	46.6	46.6	48.7	50.3
82.5°	27.7	28.0	28.9	29.2	29.2	30.1	29.8	30.4	31.3	31.9	34.0
85°	15.3	16.2	16.5	16.2	16.5	15.9	16.9	17.2	17.5	17.5	17.5
87.5°	6.0	6.3	6.0	6.3	6.0	6.3	6.3	5.7	5.7	6.6	5.4
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: P273746

CATALOG NUMBER: 4RCG-4-56D-L930-A

CANDELA DISTRIBUTION (continued):

	165°	170°	175°	180°
0°	621.1	621.1	621.1	621.1
2.5°	587.1	586.8	588.9	587.4
5°	552.8	553.7	550.6	550.6
7.5°	521.8	520.6	520.9	518.8
10°	493.8	492.0	491.4	491.7
12.5°	470.6	470.6	465.8	465.8
15°	453.5	447.7	447.1	448.9
17.5°	434.5	431.2	431.5	430.9
20°	420.1	418.3	417.9	415.8
22.5°	406.8	406.5	406.8	404.4
25°	396.3	397.8	396.6	396.6
27.5°	389.1	389.1	388.2	388.2
30°	380.6	380.3	380.9	380.9
32.5°	372.2	372.8	372.8	373.1
35°	363.5	363.8	364.7	364.1
37.5°	352.1	353.6	353.3	353.9
40°	338.8	339.7	339.4	339.4
42.5°	325.3	325.9	325.0	324.4
45°	310.2	309.6	310.5	309.3
47.5°	293.7	294.0	294.3	295.5
50°	277.1	278.9	278.9	278.6
52.5°	260.9	261.5	263.0	263.0
55°	244.0	244.6	245.2	245.5
57.5°	226.9	226.6	227.8	228.1
60°	208.5	208.5	210.9	211.8
62.5°	189.0	190.2	192.6	190.8
65°	170.0	172.4	172.1	173.3
67.5°	150.1	151.7	154.1	154.1
70°	130.0	131.5	132.7	133.6
72.5°	110.4	111.0	114.3	112.5
75°	89.7	91.8	93.6	92.7
77.5°	69.8	72.5	73.1	72.2
80°	52.4	52.1	53.9	53.6
82.5°	34.9	34.6	35.2	35.5
85°	18.7	19.6	18.4	18.1
87.5°	5.4	5.4	5.1	4.8
90°	0.0	0.0	0.0	0.0

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