

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: P273737

Luminaire Tested: **4RCG-4-56D-L835-A**

Issue Date: 3/3/2020

Test Information

Test Method: LM-41-14
Report Number: P273737
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-L835-A
Description: RCG SERIES DIRECT RECESSED LED LUMINAIRE WITH ASYMMETRIC FLUSH LENS
Light Source: (168) 3500K CCT, 80 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 2299.2 lumens
Efficiency: N/A
Efficacy: 123.6 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

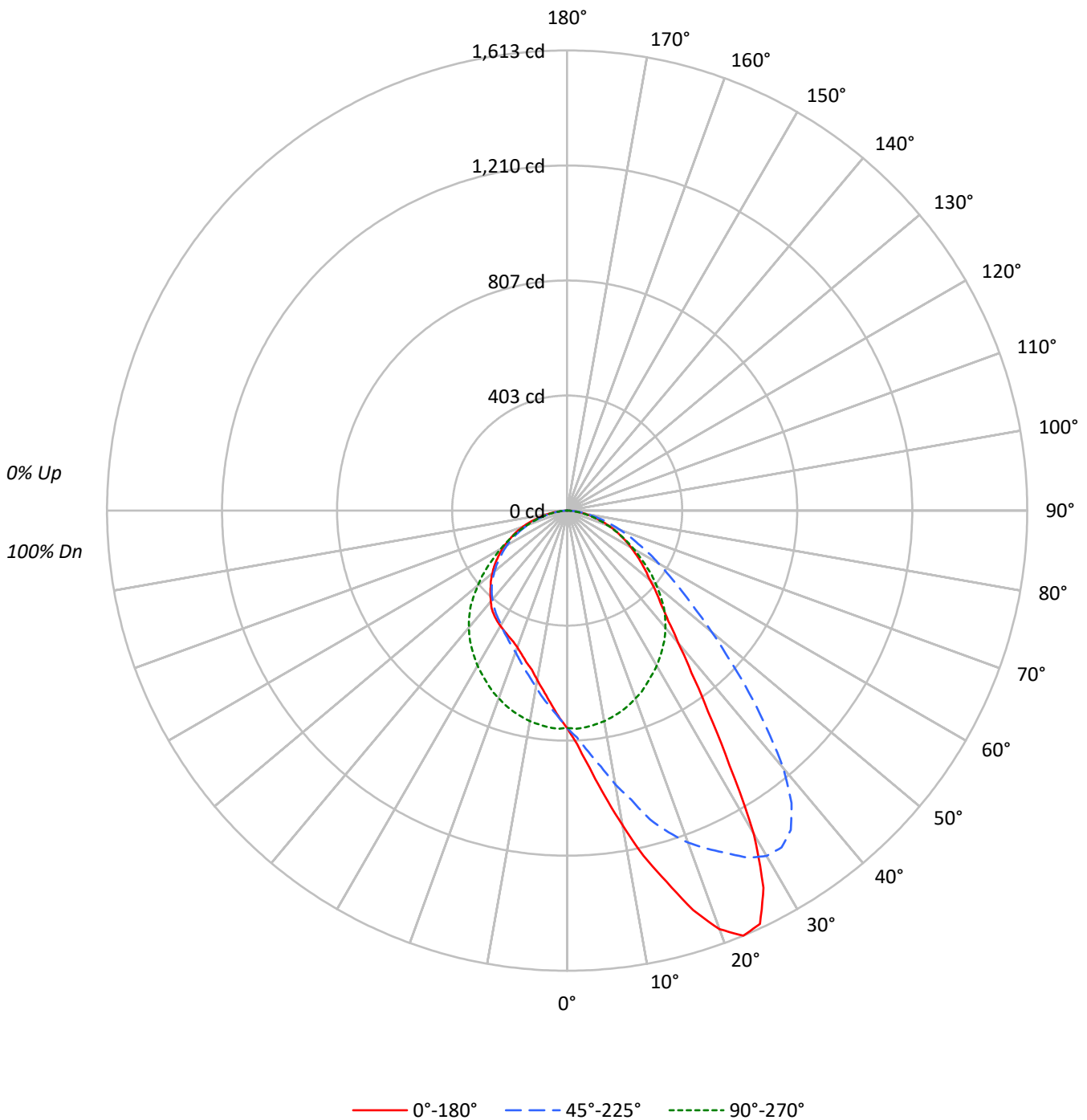
Input Watts (W): 18.6
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	9234	9234	9234
5°	11012	9273	8218
10°	13782	9226	7423
15°	16905	9152	6909
20°	20138	9036	6579
25°	21383	8895	6505
30°	18327	8793	6539
35°	12746	8645	6608
40°	9600	8473	6587
45°	7971	8218	6504
50°	7141	7698	6445
55°	6676	7137	6365
60°	6262	6550	6298
65°	5885	5971	6098
70°	5518	5309	5809
75°	4946	4650	5325
80°	4328	3811	4586
85°	3393	2768	3074



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	74.9	3.3
10°-20°	240.6	10.5
20°-30°	404.9	17.6
30°-40°	457.6	19.9
40°-50°	409.9	17.8
50°-60°	330.8	14.4
60°-70°	230.5	10.0
70°-80°	121.0	5.3
80°-90°	29.0	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°	720.4	31.3
0°-40°	1178.0	51.2
0°-60°	1918.7	83.5
0°-90°	2299.2	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2299.2	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	762	762	762	762	762	
5°	905	848	762	690	675	93
15°	1347	1121	729	575	551	389
25°	1599	1325	665	494	486	707
35°	861	1366	584	437	447	556
45°	465	900	479	374	379	367
55°	316	489	338	289	301	283
65°	205	274	208	196	213	204
75°	106	130	99	98	114	113
85°	24	28	20	20	22	30
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°	761.8	761.8	761.8	761.8	761.8	761.8	761.8	761.8	761.8	761.8	761.8
2.5°	820.1	819.3	817.5	819.0	816.0	811.9	811.6	807.9	797.2	796.4	793.5
5°	905.0	902.0	901.6	901.3	896.1	889.1	875.8	874.7	857.0	848.1	837.4
7.5°	1007.6	1006.4	1003.5	1000.2	982.8	974.3	961.8	945.5	924.9	905.0	892.4
10°	1119.7	1131.9	1116.8	1106.5	1096.9	1078.8	1057.7	1031.5	1005.3	974.7	951.5
12.5°	1240.1	1244.5	1244.5	1234.9	1218.7	1188.8	1147.4	1117.9	1094.3	1038.2	1018.3
15°	1347.1	1369.6	1355.2	1322.0	1322.7	1296.5	1247.8	1194.3	1165.9	1121.2	1060.3
17.5°	1468.1	1472.2	1467.8	1436.8	1421.6	1383.6	1339.7	1289.9	1236.4	1182.1	1119.0
20°	1561.2	1558.9	1546.0	1531.6	1499.9	1471.8	1422.8	1365.5	1291.7	1238.6	1168.1
22.5°	1612.8	1608.8	1604.3	1592.9	1567.8	1537.2	1494.4	1430.5	1361.1	1282.9	1198.7
25°	1598.8	1603.6	1604.3	1601.0	1591.8	1573.7	1539.0	1489.2	1419.1	1324.9	1240.1
27.5°	1490.3	1502.5	1518.0	1528.3	1544.9	1556.0	1544.9	1513.5	1456.0	1371.8	1267.4
30°	1309.4	1294.7	1331.2	1377.4	1408.7	1464.1	1495.1	1496.9	1467.8	1398.0	1296.9
32.5°	1058.5	1082.5	1093.5	1153.0	1230.8	1294.7	1364.1	1425.7	1440.1	1399.5	1314.2
35°	861.4	881.7	911.2	940.8	1014.6	1078.0	1186.5	1281.0	1356.3	1366.3	1312.0
37.5°	716.0	727.8	745.9	777.3	827.8	906.4	992.4	1115.3	1219.0	1292.1	1284.7
40°	606.7	609.7	630.7	653.2	692.4	754.4	830.0	935.6	1066.2	1179.5	1226.8
42.5°	524.8	532.2	538.1	559.5	588.7	631.5	700.5	783.2	900.2	1034.9	1138.6
45°	465.0	472.4	477.9	492.3	514.5	545.8	594.9	674.7	765.8	900.5	1024.9
47.5°	423.7	423.0	427.7	439.2	455.1	480.2	516.3	569.5	656.9	769.5	899.8
50°	378.7	384.6	386.0	394.5	406.3	423.7	452.5	496.0	564.7	660.6	778.0
52.5°	346.9	347.7	352.5	358.0	368.0	380.5	404.5	436.2	486.4	564.7	670.2
55°	315.9	315.9	320.0	324.8	330.7	342.9	359.5	384.6	425.5	489.0	578.3
57.5°	287.1	288.6	292.3	293.4	298.6	307.1	321.5	341.4	372.8	424.1	497.9
60°	258.3	261.7	261.3	264.3	268.7	275.0	286.8	302.3	329.6	368.7	428.5
62.5°	233.3	232.1	232.1	235.8	240.3	246.2	252.8	265.7	287.9	321.5	370.2
65°	205.2	204.5	207.0	209.3	210.7	215.2	221.1	232.9	248.4	274.2	313.7
67.5°	180.8	178.6	180.5	181.2	183.8	187.5	193.4	200.8	213.3	235.1	266.8
70°	155.7	153.9	153.5	154.3	156.5	159.1	163.1	170.1	181.6	198.2	220.0
72.5°	129.9	128.8	128.8	130.6	131.4	132.9	135.4	141.7	150.2	161.7	181.6
75°	105.6	105.6	105.6	105.9	107.0	108.5	110.7	114.0	121.1	129.9	143.6
77.5°	83.4	83.8	83.0	82.7	84.5	85.3	85.6	89.3	93.4	100.0	110.7
80°	62.0	60.2	60.9	62.0	62.7	63.1	64.2	65.0	68.3	71.6	78.6
82.5°	42.1	40.6	40.6	42.4	42.4	42.8	43.9	45.0	45.8	48.7	51.7
85°	24.4	24.4	24.7	24.7	25.1	24.7	25.8	26.2	26.2	28.0	30.3
87.5°	11.1	10.3	10.7	11.1	10.7	11.1	11.4	11.8	12.2	12.5	12.9
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):

	55°	60°	65°	70°	75°	80°	85°	90°	95°	100°	105°
0°	761.8	761.8	761.8	761.8	761.8	761.8	761.8	761.8	761.8	761.8	761.8
2.5°	791.3	788.3	785.4	780.2	775.8	769.5	767.7	765.4	758.8	752.9	748.5
5°	833.4	824.5	811.6	799.8	790.2	777.3	769.9	762.1	751.1	741.1	733.0
7.5°	873.6	858.1	840.0	820.4	801.6	783.5	769.1	756.2	741.8	727.8	717.1
10°	923.4	898.3	870.3	840.0	814.2	789.1	768.0	749.6	729.6	712.3	697.9
12.5°	980.2	940.0	898.7	860.3	828.6	791.3	764.7	740.0	716.7	695.0	678.3
15°	1022.7	975.4	929.7	879.1	832.6	789.1	758.8	729.3	703.1	681.7	661.0
17.5°	1064.8	1013.1	954.8	893.9	839.3	789.1	747.7	716.0	683.9	658.0	638.1
20°	1099.4	1038.6	970.3	906.4	844.4	786.8	740.3	700.5	665.1	637.4	614.1
22.5°	1129.3	1055.5	984.3	914.9	844.1	780.9	726.7	685.4	646.2	619.3	594.2
25°	1148.2	1062.9	992.1	912.0	834.8	770.6	711.6	665.1	626.7	594.9	569.5
27.5°	1165.9	1061.8	981.7	895.4	823.8	759.9	696.4	646.6	606.4	572.1	545.8
30°	1183.6	1063.6	963.6	878.4	806.0	739.6	678.3	628.2	585.3	550.3	525.9
32.5°	1194.7	1062.5	947.0	854.8	778.0	721.2	658.8	606.4	562.1	527.8	504.5
35°	1197.6	1056.3	927.5	820.4	747.4	690.2	638.1	584.2	538.1	506.0	479.4
37.5°	1191.3	1044.8	906.1	789.4	710.5	653.6	608.2	562.1	517.8	482.0	458.7
40°	1171.0	1033.8	880.2	756.2	672.1	617.8	580.5	535.5	492.0	458.4	437.0
42.5°	1132.3	1011.2	851.8	719.3	632.2	578.0	544.4	508.6	468.0	437.0	415.6
45°	1064.4	976.6	823.4	682.4	593.1	537.0	506.7	479.4	442.1	411.5	393.1
47.5°	977.7	929.7	782.4	643.7	552.1	497.9	466.1	443.6	414.5	389.7	371.6
50°	886.5	869.2	740.7	603.8	511.2	458.4	428.1	408.2	388.6	363.9	347.7
52.5°	781.3	799.0	692.0	562.5	469.5	417.8	389.7	375.0	357.6	338.4	324.8
55°	683.9	722.6	634.4	515.2	428.1	378.7	351.7	337.7	327.4	312.2	300.1
57.5°	589.4	638.9	574.6	467.6	387.5	344.3	317.8	301.9	295.3	286.8	276.8
60°	507.1	555.8	509.7	419.6	346.6	306.0	283.1	270.2	263.5	258.0	249.9
62.5°	433.7	483.1	446.2	370.9	306.3	269.4	250.2	237.7	232.9	230.7	224.0
65°	367.6	410.0	384.2	320.0	268.3	235.1	217.0	208.2	203.4	202.2	197.8
67.5°	310.4	343.2	323.3	275.0	232.9	202.6	186.7	179.0	174.9	174.6	170.9
70°	254.3	284.6	270.2	227.3	192.3	169.8	156.5	149.8	147.6	147.3	145.4
72.5°	210.7	229.6	218.9	184.9	159.8	139.9	131.0	124.0	121.4	122.2	121.1
75°	162.4	178.3	171.6	146.9	125.1	111.8	103.7	99.3	97.1	98.2	96.7
77.5°	124.0	135.1	128.4	109.6	95.6	85.6	79.3	76.4	74.2	74.2	73.4
80°	88.2	94.1	90.8	80.5	69.4	61.3	56.5	54.6	53.5	53.1	52.8
82.5°	56.5	61.3	57.2	50.9	44.3	40.2	38.0	35.4	34.7	35.1	34.7
85°	31.7	33.6	32.1	27.7	24.7	22.5	21.0	19.9	19.2	19.6	18.8
87.5°	13.7	14.0	12.9	11.4	10.7	9.6	9.6	8.9	8.1	8.1	7.8
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°	761.8	761.8	761.8	761.8	761.8	761.8	761.8	761.8	761.8	761.8	761.8
2.5°	745.9	743.3	739.6	734.1	729.6	722.6	722.6	723.7	723.7	723.4	722.6
5°	726.3	720.8	714.1	706.4	698.3	690.2	688.7	685.7	683.5	682.0	680.2
7.5°	706.4	697.2	687.9	677.2	668.0	660.3	654.7	649.9	647.0	643.7	641.1
10°	686.1	673.9	662.5	651.0	638.5	628.5	622.2	617.8	614.5	611.5	610.1
12.5°	662.1	647.7	634.8	624.1	610.1	599.7	593.8	592.4	588.3	581.3	577.6
15°	638.9	625.9	610.8	594.2	587.6	575.0	568.0	564.7	562.5	557.7	556.2
17.5°	619.7	602.3	585.0	572.8	560.6	550.6	546.6	542.2	539.2	534.8	533.7
20°	595.7	580.5	565.0	551.8	538.8	527.8	524.4	521.5	518.5	516.7	515.2
22.5°	571.3	556.2	544.0	531.8	517.8	511.5	507.8	504.5	502.7	501.6	500.1
25°	548.8	535.5	521.1	510.0	499.0	494.2	492.0	490.1	488.6	486.8	486.4
27.5°	528.9	514.1	501.9	491.2	483.1	479.0	476.5	475.4	475.4	476.1	476.5
30°	506.0	492.7	483.1	474.3	466.9	463.2	462.8	462.8	464.3	464.7	465.4
32.5°	485.0	474.6	465.0	456.5	451.4	449.2	451.0	451.0	452.1	453.2	454.7
35°	464.7	455.1	447.7	440.3	435.5	436.6	437.3	438.1	439.9	442.1	443.6
37.5°	445.5	436.6	428.9	423.0	420.0	422.2	424.1	425.5	427.7	429.6	431.1
40°	424.4	418.2	410.8	405.6	406.3	407.4	408.9	410.8	412.6	413.7	415.2
42.5°	404.9	398.2	393.1	389.0	390.1	391.6	392.3	393.1	395.3	397.5	398.2
45°	384.9	379.8	374.6	372.0	372.8	373.5	374.2	375.3	377.2	378.7	379.0
47.5°	362.4	358.7	355.4	352.5	353.9	353.6	354.7	356.9	357.6	358.4	360.6
50°	341.0	337.7	333.6	332.9	332.9	332.9	333.3	336.2	336.2	337.7	339.2
52.5°	317.4	315.6	313.3	311.9	311.1	311.1	313.0	314.1	314.8	317.0	318.5
55°	294.1	291.9	289.7	288.6	287.9	288.6	291.6	292.3	294.1	295.3	296.4
57.5°	269.8	268.3	266.5	265.7	265.7	266.1	268.3	270.2	270.5	274.2	275.7
60°	245.8	243.2	241.7	241.7	241.0	244.3	243.6	247.3	248.0	250.2	252.8
62.5°	221.1	217.4	217.0	217.0	218.5	218.9	220.3	221.4	223.7	226.6	228.5
65°	194.1	192.3	194.9	194.5	193.8	196.0	196.0	197.8	200.0	202.6	206.7
67.5°	169.0	167.6	168.3	167.9	169.0	170.5	171.6	173.1	175.7	178.6	181.2
70°	143.6	144.7	142.8	144.3	145.4	145.8	146.5	148.7	151.7	153.5	156.5
72.5°	118.8	118.5	119.2	119.6	120.7	121.4	122.2	124.7	128.1	129.5	131.8
75°	95.2	94.9	96.0	96.0	97.8	98.5	99.3	100.4	103.3	105.6	107.4
77.5°	73.8	74.2	73.8	75.3	74.6	74.9	77.1	78.2	78.6	83.4	84.1
80°	52.4	53.1	53.5	53.9	54.3	53.5	56.1	57.2	57.2	59.8	61.6
82.5°	34.0	34.3	35.4	35.8	35.8	36.9	36.5	37.3	38.4	39.1	41.7
85°	18.8	19.9	20.3	19.9	20.3	19.6	20.7	21.0	21.4	21.4	21.4
87.5°	7.4	7.8	7.4	7.8	7.4	7.8	7.8	7.0	7.0	8.1	6.6
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: P273737

CATALOG NUMBER: 4RCG-4-56D-L835-A

CANDELA DISTRIBUTION (continued):

	165°	170°	175°	180°
0°	761.8	761.8	761.8	761.8
2.5°	720.0	719.7	722.3	720.4
5°	678.0	679.1	675.4	675.4
7.5°	640.0	638.5	638.9	636.3
10°	605.6	603.4	602.7	603.1
12.5°	577.2	577.2	571.3	571.3
15°	556.2	549.2	548.4	550.6
17.5°	532.9	528.9	529.2	528.5
20°	515.2	513.0	512.6	510.0
22.5°	499.0	498.6	499.0	496.0
25°	486.1	487.9	486.4	486.4
27.5°	477.2	477.2	476.1	476.1
30°	466.9	466.5	467.2	467.2
32.5°	456.5	457.3	457.3	457.6
35°	445.8	446.2	447.3	446.6
37.5°	431.8	433.7	433.3	434.0
40°	415.6	416.7	416.3	416.3
42.5°	399.0	399.7	398.6	397.9
45°	380.5	379.8	380.9	379.4
47.5°	360.2	360.6	360.9	362.4
50°	339.9	342.1	342.1	341.8
52.5°	320.0	320.7	322.6	322.6
55°	299.3	300.1	300.8	301.2
57.5°	278.3	277.9	279.4	279.8
60°	255.8	255.8	258.7	259.8
62.5°	231.8	233.3	236.2	234.0
65°	208.5	211.5	211.1	212.6
67.5°	184.2	186.0	189.0	189.0
70°	159.4	161.3	162.8	163.9
72.5°	135.4	136.2	140.2	138.0
75°	110.0	112.6	114.8	113.7
77.5°	85.6	88.9	89.7	88.6
80°	64.2	63.8	66.1	65.7
82.5°	42.8	42.4	43.2	43.5
85°	22.9	24.0	22.5	22.1
87.5°	6.6	6.6	6.3	5.9
90°	0.0	0.0	0.0	0.0

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