

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: P273716

Luminaire Tested: **4RCG-4-34D-L835-A**

Issue Date: 3/3/2020

Test Information

Test Method: LM-41-14
Report Number: P273716
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-4-34D-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

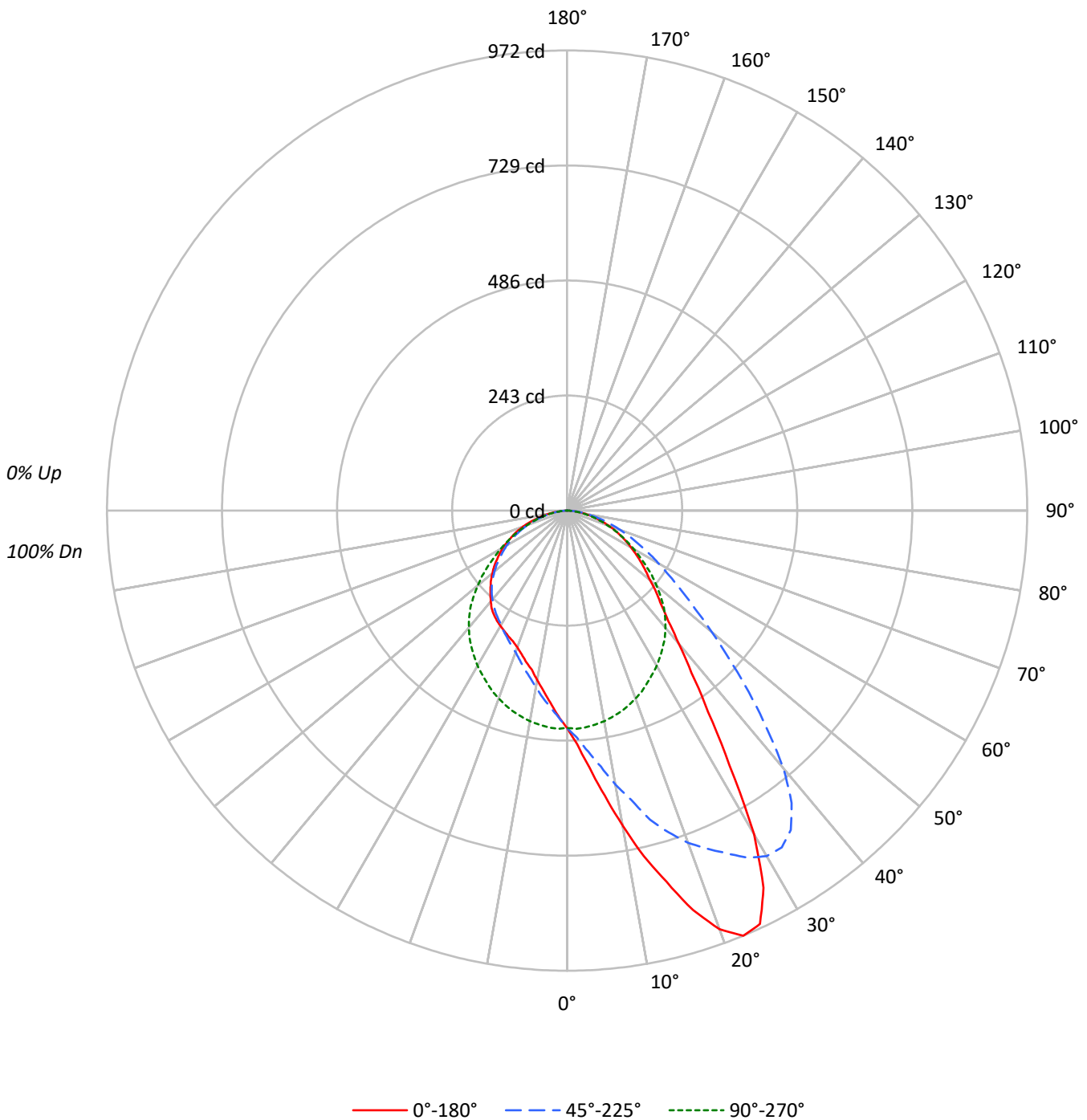
Lumens per Lamp: N/A
Luminaire Lumens: 1385.8 lumens
Efficiency: N/A
Efficacy: 121.6 lumens/watt
Spacing Criteria (0/90/45): 1.37 / 1.23 / 1.5
Luminous Opening: Rectangular (W 3.88' x L: 0.23' x H: 0')
CIE Type: Direct

Input Watts (W): 11.4
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



TEST NUMBER: P273716
CATALOG NUMBER: 4RCG-4-34D-L835-A

Luminous Intensity Polar Plot





TEST NUMBER: P273716

CATALOG NUMBER: 4RCG-4-34D-L835-A

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	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					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°	5565	5565	5565
5°	6636	5590	4953
10°	8307	5561	4474
15°	10188	5516	4165
20°	12138	5446	3965
25°	12887	5360	3921
30°	11046	5299	3941
35°	7683	5210	3983
40°	5787	5108	3970
45°	4805	4954	3920
50°	4303	4639	3885
55°	4024	4301	3836
60°	3775	3947	3796
65°	3548	3599	3674
70°	3328	3200	3501
75°	2979	2801	3208
80°	2611	2297	2764
85°	2044	1669	1850



TEST NUMBER: P273716

CATALOG NUMBER: 4RCG-4-34D-L835-A

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	45.2	3.3
10°-20°	145.0	10.5
20°-30°	244.0	17.6
30°-40°	275.8	19.9
40°-50°	247.0	17.8
50°-60°	199.4	14.4
60°-70°	138.9	10.0
70°-80°	72.9	5.3
80°-90°	17.5	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°	434.2	31.3
0°-40°	710.0	51.2
0°-60°	1156.4	83.5
0°-90°	1385.8	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1385.8	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	459	459	459	459	459	
5°	545	511	459	416	407	56
15°	812	676	440	347	332	234
25°	964	799	401	298	293	426
35°	519	824	352	263	269	335
45°	280	543	289	225	229	221
55°	190	295	204	174	182	171
65°	124	165	126	118	128	123
75°	64	78	60	59	68	68
85°	15	17	12	12	13	18
90°	0	0	0	0	0	



TEST NUMBER: P273716

CATALOG NUMBER: 4RCG-4-34D-L835-A

CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	459.1	459.1	459.1	459.1	459.1	459.1	459.1	459.1	459.1	459.1	459.1
2.5°	494.3	493.8	492.7	493.6	491.8	489.4	489.2	486.9	480.5	480.0	478.3
5°	545.4	543.7	543.4	543.2	540.1	535.9	527.9	527.2	516.5	511.2	504.7
7.5°	607.3	606.6	604.8	602.8	592.4	587.3	579.7	569.9	557.5	545.4	537.9
10°	674.9	682.2	673.1	666.9	661.1	650.2	637.5	621.7	605.9	587.5	573.5
12.5°	747.4	750.1	750.1	744.3	734.5	716.5	691.6	673.8	659.6	625.7	613.7
15°	811.9	825.5	816.8	796.8	797.3	781.5	752.1	719.8	702.7	675.8	639.1
17.5°	884.9	887.3	884.7	866.0	856.9	834.0	807.5	777.5	745.2	712.5	674.5
20°	941.0	939.6	931.8	923.2	904.0	887.1	857.5	823.1	778.6	746.5	704.0
22.5°	972.1	969.6	967.0	960.1	945.0	926.5	900.7	862.2	820.4	773.2	722.5
25°	963.6	966.5	967.0	965.0	959.4	948.5	927.6	897.6	855.3	798.6	747.4
27.5°	898.2	905.6	914.9	921.2	931.2	937.8	931.2	912.3	877.6	826.8	763.9
30°	789.2	780.3	802.4	830.2	849.1	882.4	901.1	902.2	884.7	842.6	781.7
32.5°	638.0	652.4	659.1	694.9	741.9	780.3	822.2	859.3	868.0	843.5	792.1
35°	519.2	531.4	549.2	567.0	611.5	649.8	715.2	772.1	817.5	823.5	790.8
37.5°	431.5	438.7	449.6	468.5	498.9	546.3	598.2	672.2	734.7	778.8	774.3
40°	365.7	367.5	380.2	393.7	417.3	454.7	500.3	563.9	642.6	710.9	739.4
42.5°	316.3	320.8	324.3	337.2	354.8	380.6	422.2	472.0	542.5	623.7	686.2
45°	280.3	284.7	288.1	296.7	310.1	329.0	358.6	406.6	461.6	542.8	617.7
47.5°	255.4	254.9	257.8	264.7	274.3	289.4	311.2	343.2	396.0	463.8	542.3
50°	228.2	231.8	232.7	237.8	244.9	255.4	272.7	299.0	340.3	398.2	468.9
52.5°	209.1	209.5	212.4	215.8	221.8	229.3	243.8	262.9	293.2	340.3	404.0
55°	190.4	190.4	192.9	195.8	199.3	206.7	216.7	231.8	256.5	294.7	348.6
57.5°	173.1	174.0	176.2	176.8	180.0	185.1	193.8	205.8	224.7	255.6	300.1
60°	155.7	157.7	157.5	159.3	161.9	165.7	172.8	182.2	198.6	222.2	258.3
62.5°	140.6	139.9	139.9	142.1	144.8	148.4	152.4	160.2	173.5	193.8	223.1
65°	123.7	123.2	124.8	126.1	127.0	129.7	133.2	140.4	149.7	165.3	189.1
67.5°	109.0	107.7	108.8	109.2	110.8	113.0	116.6	121.0	128.6	141.7	160.8
70°	93.9	92.8	92.5	93.0	94.3	95.9	98.3	102.5	109.4	119.5	132.6
72.5°	78.3	77.6	77.6	78.7	79.2	80.1	81.6	85.4	90.5	97.4	109.4
75°	63.6	63.6	63.6	63.8	64.5	65.4	66.7	68.7	73.0	78.3	86.5
77.5°	50.3	50.5	50.1	49.8	50.9	51.4	51.6	53.8	56.3	60.3	66.7
80°	37.4	36.3	36.7	37.4	37.8	38.0	38.7	39.2	41.2	43.2	47.4
82.5°	25.4	24.5	24.5	25.6	25.6	25.8	26.5	27.1	27.6	29.4	31.1
85°	14.7	14.7	14.9	14.9	15.1	14.9	15.6	15.8	15.8	16.9	18.2
87.5°	6.7	6.2	6.5	6.7	6.5	6.7	6.9	7.1	7.3	7.6	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



TEST NUMBER: P273716

CATALOG NUMBER: 4RCG-4-34D-L835-A

CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°	95°	100°	105°
0°	459.1	459.1	459.1	459.1	459.1	459.1	459.1	459.1	459.1	459.1	459.1
2.5°	476.9	475.1	473.4	470.3	467.6	463.8	462.7	461.4	457.4	453.8	451.1
5°	502.3	496.9	489.2	482.0	476.3	468.5	464.0	459.4	452.7	446.7	441.8
7.5°	526.5	517.2	506.3	494.5	483.2	472.3	463.6	455.8	447.1	438.7	432.2
10°	556.6	541.4	524.5	506.3	490.7	475.6	462.9	451.8	439.8	429.3	420.6
12.5°	590.8	566.6	541.7	518.5	499.4	476.9	460.9	446.0	432.0	418.9	408.9
15°	616.4	587.9	560.3	529.9	501.8	475.6	457.4	439.6	423.8	410.9	398.4
17.5°	641.8	610.6	575.5	538.8	505.8	475.6	450.7	431.5	412.2	396.6	384.6
20°	662.7	626.0	584.8	546.3	509.0	474.3	446.2	422.2	400.8	384.2	370.2
22.5°	680.7	636.2	593.3	551.4	508.7	470.7	438.0	413.1	389.5	373.3	358.1
25°	692.0	640.6	597.9	549.7	503.2	464.5	428.9	400.8	377.7	358.6	343.2
27.5°	702.7	640.0	591.7	539.7	496.5	458.0	419.8	389.7	365.5	344.8	329.0
30°	713.4	641.1	580.8	529.4	485.8	445.8	408.9	378.6	352.8	331.7	317.0
32.5°	720.1	640.4	570.8	515.2	468.9	434.7	397.1	365.5	338.8	318.1	304.1
35°	721.8	636.6	559.0	494.5	450.5	416.0	384.6	352.1	324.3	305.0	289.0
37.5°	718.1	629.7	546.1	475.8	428.2	394.0	366.6	338.8	312.1	290.5	276.5
40°	705.8	623.1	530.5	455.8	405.1	372.4	349.9	322.8	296.5	276.3	263.4
42.5°	682.5	609.5	513.4	433.5	381.1	348.4	328.1	306.5	282.1	263.4	250.5
45°	641.5	588.6	496.3	411.3	357.5	323.7	305.4	289.0	266.5	248.0	236.9
47.5°	589.3	560.3	471.6	387.9	332.8	300.1	281.0	267.4	249.8	234.9	224.0
50°	534.3	523.9	446.5	363.9	308.1	276.3	258.0	246.0	234.2	219.3	209.5
52.5°	470.9	481.6	417.1	339.0	283.0	251.8	234.9	226.0	215.6	204.0	195.8
55°	412.2	435.6	382.4	310.5	258.0	228.2	212.0	203.5	197.3	188.2	180.8
57.5°	355.2	385.1	346.4	281.8	233.6	207.5	191.5	182.0	178.0	172.8	166.8
60°	305.6	335.0	307.2	252.9	208.9	184.4	170.6	162.8	158.8	155.5	150.6
62.5°	261.4	291.2	268.9	223.6	184.6	162.4	150.8	143.3	140.4	139.0	135.0
65°	221.6	247.1	231.6	192.9	161.7	141.7	130.8	125.5	122.6	121.9	119.2
67.5°	187.1	206.9	194.9	165.7	140.4	122.1	112.6	107.9	105.4	105.2	103.0
70°	153.3	171.5	162.8	137.0	115.9	102.3	94.3	90.3	89.0	88.8	87.6
72.5°	127.0	138.4	131.9	111.4	96.3	84.3	79.0	74.7	73.2	73.6	73.0
75°	97.9	107.4	103.4	88.5	75.4	67.4	62.5	59.8	58.5	59.2	58.3
77.5°	74.7	81.4	77.4	66.1	57.6	51.6	47.8	46.0	44.7	44.7	44.3
80°	53.2	56.7	54.7	48.5	41.8	36.9	34.0	32.9	32.3	32.0	31.8
82.5°	34.0	36.9	34.5	30.7	26.7	24.2	22.9	21.4	20.9	21.1	20.9
85°	19.1	20.2	19.4	16.7	14.9	13.6	12.7	12.0	11.6	11.8	11.3
87.5°	8.2	8.5	7.8	6.9	6.5	5.8	5.8	5.3	4.9	4.9	4.7
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: P273716

CATALOG NUMBER: 4RCG-4-34D-L835-A

CANDELA DISTRIBUTION (continued):

	110°	115°	120°	125°	130°	135°	140°	145°	150°	155°	160°
0°	459.1	459.1	459.1	459.1	459.1	459.1	459.1	459.1	459.1	459.1	459.1
2.5°	449.6	448.0	445.8	442.4	439.8	435.6	435.6	436.2	436.2	436.0	435.6
5°	437.8	434.4	430.4	425.8	420.9	416.0	415.1	413.3	412.0	411.1	410.0
7.5°	425.8	420.2	414.6	408.2	402.6	398.0	394.6	391.7	389.9	387.9	386.4
10°	413.5	406.2	399.3	392.4	384.8	378.8	375.0	372.4	370.4	368.6	367.7
12.5°	399.1	390.4	382.6	376.2	367.7	361.5	357.9	357.0	354.6	350.4	348.1
15°	385.1	377.3	368.2	358.1	354.1	346.6	342.3	340.3	339.0	336.1	335.2
17.5°	373.5	363.0	352.6	345.2	337.9	331.9	329.4	326.8	325.0	322.3	321.7
20°	359.0	349.9	340.6	332.6	324.8	318.1	316.1	314.3	312.5	311.4	310.5
22.5°	344.3	335.2	327.9	320.5	312.1	308.3	306.1	304.1	303.0	302.3	301.4
25°	330.8	322.8	314.1	307.4	300.7	297.9	296.5	295.4	294.5	293.4	293.2
27.5°	318.8	309.9	302.5	296.1	291.2	288.7	287.2	286.5	286.5	287.0	287.2
30°	305.0	297.0	291.2	285.8	281.4	279.2	278.9	278.9	279.8	280.1	280.5
32.5°	292.3	286.1	280.3	275.2	272.1	270.7	271.8	271.8	272.5	273.2	274.1
35°	280.1	274.3	269.8	265.4	262.5	263.2	263.6	264.0	265.2	266.5	267.4
37.5°	268.5	263.2	258.5	254.9	253.1	254.5	255.6	256.5	257.8	258.9	259.8
40°	255.8	252.0	247.6	244.5	244.9	245.6	246.5	247.6	248.7	249.4	250.3
42.5°	244.0	240.0	236.9	234.5	235.1	236.0	236.5	236.9	238.2	239.6	240.0
45°	232.0	228.9	225.8	224.2	224.7	225.1	225.6	226.2	227.3	228.2	228.5
47.5°	218.4	216.2	214.2	212.4	213.3	213.1	213.8	215.1	215.6	216.0	217.3
50°	205.5	203.5	201.1	200.6	200.6	200.6	200.9	202.6	202.6	203.5	204.4
52.5°	191.3	190.2	188.9	188.0	187.5	187.5	188.6	189.3	189.7	191.1	192.0
55°	177.3	176.0	174.6	174.0	173.5	174.0	175.7	176.2	177.3	178.0	178.6
57.5°	162.6	161.7	160.6	160.2	160.2	160.4	161.7	162.8	163.1	165.3	166.2
60°	148.1	146.6	145.7	145.7	145.3	147.3	146.8	149.0	149.5	150.8	152.4
62.5°	133.2	131.0	130.8	130.8	131.7	131.9	132.8	133.5	134.8	136.6	137.7
65°	117.0	115.9	117.5	117.2	116.8	118.1	118.1	119.2	120.6	122.1	124.6
67.5°	101.9	101.0	101.4	101.2	101.9	102.8	103.4	104.3	105.9	107.7	109.2
70°	86.5	87.2	86.1	87.0	87.6	87.9	88.3	89.6	91.4	92.5	94.3
72.5°	71.6	71.4	71.9	72.1	72.7	73.2	73.6	75.2	77.2	78.1	79.4
75°	57.4	57.2	57.8	57.8	58.9	59.4	59.8	60.5	62.3	63.6	64.7
77.5°	44.5	44.7	44.5	45.4	44.9	45.2	46.5	47.2	47.4	50.3	50.7
80°	31.6	32.0	32.3	32.5	32.7	32.3	33.8	34.5	34.5	36.0	37.1
82.5°	20.5	20.7	21.4	21.6	21.6	22.2	22.0	22.5	23.1	23.6	25.1
85°	11.3	12.0	12.2	12.0	12.2	11.8	12.5	12.7	12.9	12.9	12.9
87.5°	4.4	4.7	4.4	4.7	4.4	4.7	4.7	4.2	4.2	4.9	4.0
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: P273716

CATALOG NUMBER: 4RCG-4-34D-L835-A

CANDELA DISTRIBUTION (continued):

	165°	170°	175°	180°
0°	459.1	459.1	459.1	459.1
2.5°	434.0	433.8	435.3	434.2
5°	408.6	409.3	407.1	407.1
7.5°	385.7	384.8	385.1	383.5
10°	365.0	363.7	363.3	363.5
12.5°	347.9	347.9	344.3	344.3
15°	335.2	331.0	330.6	331.9
17.5°	321.2	318.8	319.0	318.5
20°	310.5	309.2	309.0	307.4
22.5°	300.7	300.5	300.7	299.0
25°	293.0	294.1	293.2	293.2
27.5°	287.6	287.6	287.0	287.0
30°	281.4	281.2	281.6	281.6
32.5°	275.2	275.6	275.6	275.8
35°	268.7	268.9	269.6	269.2
37.5°	260.3	261.4	261.2	261.6
40°	250.5	251.1	250.9	250.9
42.5°	240.5	240.9	240.2	239.8
45°	229.3	228.9	229.6	228.7
47.5°	217.1	217.3	217.6	218.4
50°	204.9	206.2	206.2	206.0
52.5°	192.9	193.3	194.4	194.4
55°	180.4	180.8	181.3	181.5
57.5°	167.7	167.5	168.4	168.6
60°	154.2	154.2	155.9	156.6
62.5°	139.7	140.6	142.4	141.0
65°	125.7	127.5	127.2	128.1
67.5°	111.0	112.1	113.9	113.9
70°	96.1	97.2	98.1	98.8
72.5°	81.6	82.1	84.5	83.2
75°	66.3	67.8	69.2	68.5
77.5°	51.6	53.6	54.1	53.4
80°	38.7	38.5	39.8	39.6
82.5°	25.8	25.6	26.0	26.2
85°	13.8	14.5	13.6	13.3
87.5°	4.0	4.0	3.8	3.6
90°	0.0	0.0	0.0	0.0

(END OF REPORT)