

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: P273728

Luminaire Tested: **4RCG-4-34D-L935-A**

Issue Date: 3/3/2020

Test Information

Test Method: LM-41-14
Report Number: P273728
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-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

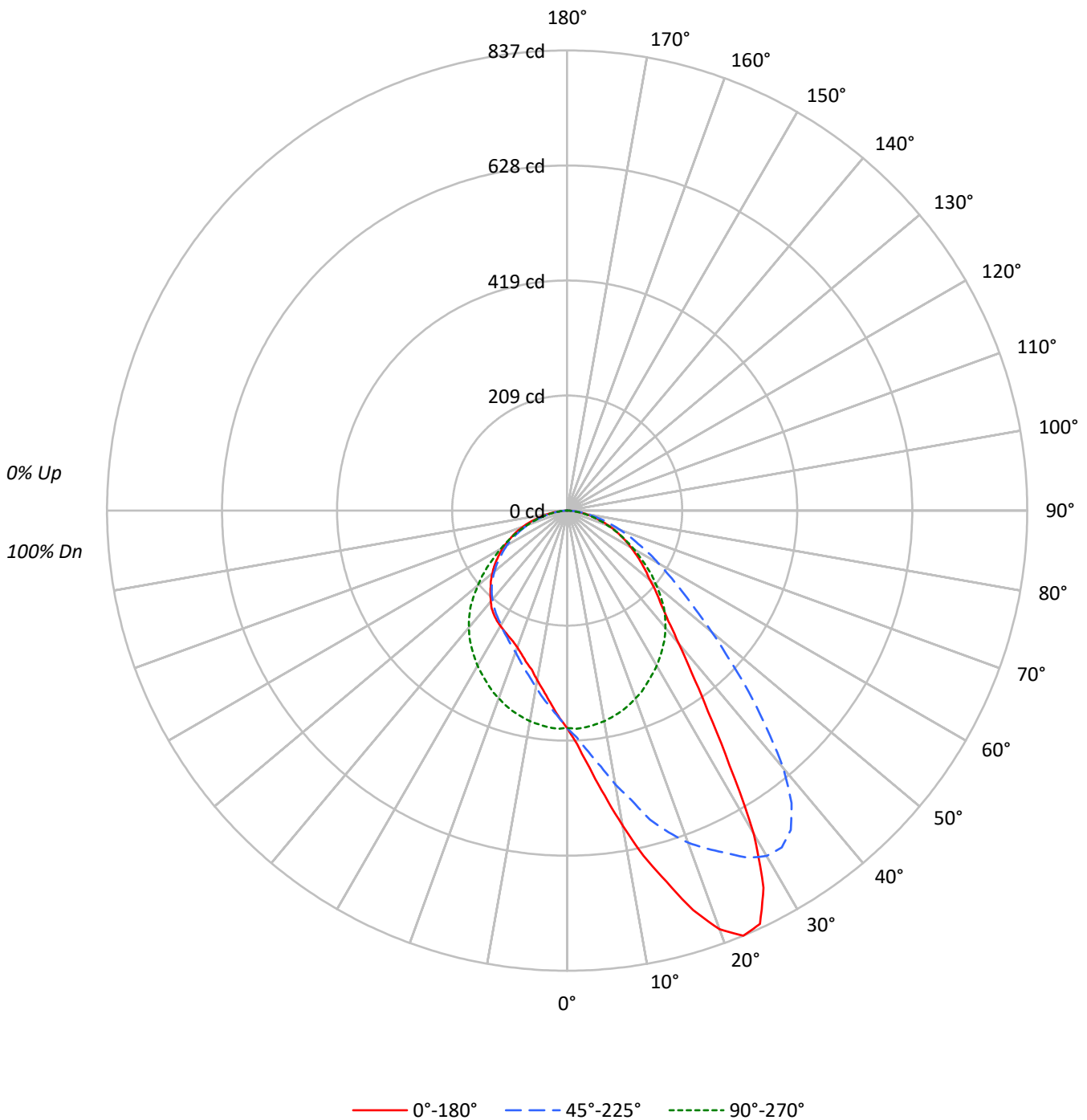
Lumens per Lamp: N/A
Luminaire Lumens: 1193.2 lumens
Efficiency: N/A
Efficacy: 104.7 lumens/watt
Spacing Criteria (0/90/45): 1.37 / 1.23 / 1.5
Luminous Opening: Rectangular (W 3.88' x L: 0.23' x H: 0')
CIE Type: Direct

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



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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°	4792	4792	4792
5°	5714	4812	4265
10°	7152	4788	3852
15°	8773	4750	3586
20°	10451	4689	3414
25°	11097	4615	3376
30°	9511	4563	3394
35°	6614	4487	3429
40°	4983	4397	3418
45°	4136	4265	3375
50°	3705	3994	3345
55°	3464	3702	3303
60°	3251	3399	3268
65°	3055	3098	3164
70°	2864	2757	3012
75°	2566	2412	2763
80°	2248	1975	2380
85°	1752	1432	1599



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	38.9	3.3
10°-20°	124.9	10.5
20°-30°	210.1	17.6
30°-40°	237.5	19.9
40°-50°	212.7	17.8
50°-60°	171.7	14.4
60°-70°	119.6	10.0
70°-80°	62.8	5.3
80°-90°	15.0	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°	373.9	31.3
0°-40°	611.3	51.2
0°-60°	995.7	83.5
0°-90°	1193.2	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1193.2	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	395	395	395	395	395	
5°	470	440	396	358	350	48
15°	699	582	378	298	286	202
25°	830	688	345	256	252	367
35°	447	709	303	227	232	288
45°	241	467	249	194	197	190
55°	164	254	175	150	156	147
65°	106	142	108	102	110	106
75°	55	67	52	51	59	59
85°	13	15	10	10	12	15
90°	0	0	0	0	0	



TEST NUMBER: P273728

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CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	395.3	395.3	395.3	395.3	395.3	395.3	395.3	395.3	395.3	395.3	395.3
2.5°	425.6	425.2	424.2	425.0	423.5	421.4	421.2	419.3	413.7	413.3	411.8
5°	469.6	468.1	467.9	467.7	465.0	461.4	454.5	453.9	444.7	440.1	434.6
7.5°	522.9	522.3	520.8	519.0	510.0	505.6	499.1	490.7	480.0	469.6	463.1
10°	581.1	587.4	579.6	574.2	569.2	559.8	548.9	535.3	521.7	505.8	493.8
12.5°	643.5	645.8	645.8	640.8	632.4	616.9	595.5	580.1	567.9	538.8	528.4
15°	699.1	710.8	703.3	686.0	686.4	672.8	647.6	619.8	605.0	581.9	550.3
17.5°	761.9	764.0	761.7	745.6	737.8	718.0	695.2	669.4	641.6	613.5	580.7
20°	810.2	809.0	802.3	794.8	778.4	763.8	738.3	708.6	670.3	642.8	606.2
22.5°	837.0	834.9	832.6	826.6	813.6	797.7	775.5	742.4	706.4	665.7	622.1
25°	829.7	832.2	832.6	830.8	826.1	816.7	798.7	772.8	736.4	687.6	643.5
27.5°	773.4	779.7	787.8	793.1	801.7	807.5	801.7	785.5	755.6	711.9	657.7
30°	679.5	671.9	690.8	714.8	731.1	759.8	775.9	776.8	761.7	725.5	673.0
32.5°	549.3	561.7	567.5	598.3	638.7	671.9	707.9	739.9	747.3	726.3	682.0
35°	447.0	457.6	472.9	488.2	526.5	559.5	615.8	664.8	703.9	709.0	680.9
37.5°	371.6	377.7	387.1	403.4	429.6	470.4	515.0	578.8	632.6	670.5	666.7
40°	314.9	316.4	327.3	339.0	359.3	391.5	430.7	485.5	553.3	612.1	636.6
42.5°	272.4	276.2	279.2	290.4	305.5	327.7	363.5	406.4	467.1	537.0	590.9
45°	241.3	245.2	248.0	255.5	267.0	283.3	308.7	350.1	397.4	467.3	531.9
47.5°	219.9	219.5	222.0	227.9	236.2	249.2	267.9	295.5	340.9	399.3	466.9
50°	196.5	199.6	200.3	204.7	210.9	219.9	234.8	257.4	293.0	342.8	403.7
52.5°	180.0	180.4	182.9	185.8	191.0	197.5	209.9	226.4	252.4	293.0	347.8
55°	163.9	163.9	166.1	168.5	171.6	177.9	186.5	199.6	220.8	253.8	300.1
57.5°	149.0	149.8	151.7	152.3	154.9	159.4	166.8	177.2	193.4	220.1	258.4
60°	134.1	135.8	135.6	137.1	139.4	142.7	148.8	156.9	171.0	191.3	222.4
62.5°	121.0	120.5	120.5	122.4	124.7	127.7	131.2	137.9	149.4	166.8	192.1
65°	106.5	106.1	107.4	108.6	109.4	111.7	114.7	120.9	128.9	142.3	162.8
67.5°	93.8	92.7	93.7	94.0	95.4	97.3	100.4	104.2	110.7	122.0	138.5
70°	80.8	79.9	79.7	80.1	81.2	82.5	84.7	88.3	94.2	102.9	114.2
72.5°	67.4	66.8	66.8	67.8	68.2	68.9	70.3	73.5	78.0	83.9	94.2
75°	54.8	54.8	54.8	55.0	55.5	56.3	57.5	59.2	62.8	67.4	74.5
77.5°	43.3	43.5	43.1	42.9	43.9	44.2	44.4	46.3	48.5	51.9	57.5
80°	32.2	31.2	31.6	32.2	32.6	32.8	33.3	33.7	35.4	37.2	40.8
82.5°	21.8	21.1	21.1	22.0	22.0	22.2	22.8	23.4	23.7	25.3	26.8
85°	12.6	12.6	12.8	12.8	13.0	12.8	13.4	13.6	13.6	14.6	15.7
87.5°	5.7	5.4	5.6	5.7	5.6	5.7	5.9	6.1	6.3	6.5	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):

	55°	60°	65°	70°	75°	80°	85°	90°	95°	100°	105°
0°	395.3	395.3	395.3	395.3	395.3	395.3	395.3	395.3	395.3	395.3	395.3
2.5°	410.6	409.1	407.6	404.9	402.6	399.3	398.4	397.2	393.8	390.7	388.4
5°	432.5	427.9	421.2	415.0	410.1	403.4	399.5	395.5	389.8	384.6	380.4
7.5°	453.3	445.3	435.9	425.8	416.0	406.6	399.1	392.4	385.0	377.7	372.1
10°	479.2	466.2	451.6	435.9	422.5	409.5	398.6	389.0	378.6	369.6	362.2
12.5°	508.7	487.8	466.4	446.4	430.0	410.6	396.8	384.0	371.9	360.6	352.0
15°	530.7	506.2	482.5	456.2	432.1	409.5	393.8	378.5	364.9	353.8	343.0
17.5°	552.6	525.7	495.5	463.9	435.5	409.5	388.0	371.6	354.9	341.5	331.2
20°	570.6	539.0	503.5	470.4	438.2	408.3	384.2	363.5	345.1	330.8	318.7
22.5°	586.1	547.8	510.8	474.8	438.0	405.3	377.1	355.7	335.4	321.4	308.4
25°	595.8	551.6	514.8	473.3	433.2	399.9	369.3	345.1	325.2	308.7	295.5
27.5°	605.0	551.0	509.5	464.6	427.5	394.4	361.4	335.6	314.7	296.9	283.3
30°	614.2	552.0	500.1	455.8	418.3	383.8	352.0	326.0	303.8	285.6	272.9
32.5°	620.0	551.4	491.5	443.6	403.7	374.2	341.9	314.7	291.7	273.9	261.8
35°	621.5	548.2	481.3	425.8	387.8	358.2	331.2	303.2	279.2	262.6	248.8
37.5°	618.2	542.2	470.2	409.7	368.7	339.2	315.6	291.7	268.7	250.1	238.1
40°	607.7	536.5	456.8	392.4	348.8	320.6	301.3	277.9	255.3	237.9	226.8
42.5°	587.6	524.8	442.0	373.3	328.1	299.9	282.5	263.9	242.9	226.8	215.7
45°	552.4	506.8	427.3	354.1	307.8	278.7	263.0	248.8	229.4	213.6	204.0
47.5°	507.4	482.5	406.0	334.0	286.5	258.4	241.9	230.2	215.1	202.3	192.9
50°	460.0	451.0	384.4	313.3	265.3	237.9	222.2	211.8	201.7	188.8	180.4
52.5°	405.5	414.7	359.1	291.9	243.6	216.8	202.3	194.6	185.6	175.6	168.5
55°	354.9	375.0	329.2	267.4	222.2	196.5	182.5	175.2	169.9	162.0	155.7
57.5°	305.9	331.5	298.2	242.7	201.1	178.7	164.9	156.7	153.2	148.8	143.6
60°	263.2	288.4	264.5	217.8	179.8	158.8	146.9	140.2	136.8	133.9	129.7
62.5°	225.0	250.7	231.6	192.5	159.0	139.8	129.9	123.3	120.9	119.7	116.3
65°	190.8	212.8	199.4	166.1	139.2	122.0	112.6	108.0	105.5	105.0	102.7
67.5°	161.1	178.1	167.8	142.7	120.9	105.1	96.9	92.9	90.8	90.6	88.7
70°	132.0	147.7	140.2	118.0	99.8	88.1	81.2	77.8	76.6	76.4	75.5
72.5°	109.4	119.1	113.6	96.0	82.9	72.6	68.0	64.4	63.0	63.4	62.8
75°	84.3	92.5	89.1	76.2	64.9	58.0	53.8	51.5	50.4	50.9	50.2
77.5°	64.4	70.1	66.7	56.9	49.6	44.4	41.2	39.6	38.5	38.5	38.1
80°	45.8	48.8	47.1	41.8	36.0	31.8	29.3	28.3	27.8	27.6	27.4
82.5°	29.3	31.8	29.7	26.4	23.0	20.9	19.7	18.4	18.0	18.2	18.0
85°	16.5	17.4	16.7	14.4	12.8	11.7	10.9	10.3	10.0	10.2	9.8
87.5°	7.1	7.3	6.7	5.9	5.6	5.0	5.0	4.6	4.2	4.2	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



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CANDELA DISTRIBUTION (continued):

	110°	115°	120°	125°	130°	135°	140°	145°	150°	155°	160°
0°	395.3	395.3	395.3	395.3	395.3	395.3	395.3	395.3	395.3	395.3	395.3
2.5°	387.1	385.7	383.8	380.9	378.6	375.0	375.0	375.6	375.6	375.4	375.0
5°	376.9	374.1	370.6	366.6	362.4	358.2	357.4	355.9	354.7	353.9	353.0
7.5°	366.6	361.8	357.0	351.5	346.7	342.6	339.8	337.3	335.7	334.0	332.7
10°	356.0	349.7	343.8	337.9	331.3	326.2	322.9	320.6	318.9	317.4	316.6
12.5°	343.6	336.1	329.4	323.9	316.6	311.2	308.2	307.4	305.3	301.7	299.7
15°	331.5	324.8	317.0	308.4	304.9	298.4	294.8	293.0	291.9	289.4	288.6
17.5°	321.6	312.6	303.6	297.2	290.9	285.8	283.7	281.4	279.8	277.5	276.9
20°	309.1	301.3	293.2	286.3	279.6	273.9	272.2	270.6	269.1	268.1	267.4
22.5°	296.5	288.6	282.3	276.0	268.7	265.5	263.5	261.8	260.9	260.3	259.5
25°	284.8	277.9	270.4	264.7	258.9	256.5	255.3	254.3	253.6	252.6	252.4
27.5°	274.5	266.8	260.5	254.9	250.7	248.6	247.3	246.7	246.7	247.1	247.3
30°	262.6	255.7	250.7	246.1	242.3	240.4	240.2	240.2	240.9	241.1	241.5
32.5°	251.7	246.3	241.3	236.9	234.2	233.1	234.0	234.0	234.6	235.2	236.0
35°	241.1	236.2	232.3	228.5	226.0	226.6	227.0	227.3	228.3	229.4	230.2
37.5°	231.2	226.6	222.6	219.5	218.0	219.1	220.1	220.8	222.0	222.9	223.7
40°	220.3	217.0	213.2	210.5	210.9	211.4	212.2	213.2	214.1	214.7	215.5
42.5°	210.1	206.7	204.0	201.9	202.4	203.2	203.6	204.0	205.1	206.3	206.7
45°	199.8	197.1	194.4	193.1	193.4	193.8	194.2	194.8	195.7	196.5	196.7
47.5°	188.1	186.2	184.4	182.9	183.7	183.5	184.1	185.2	185.6	186.0	187.1
50°	177.0	175.2	173.1	172.8	172.8	172.8	172.9	174.5	174.5	175.2	176.0
52.5°	164.7	163.8	162.6	161.8	161.5	161.5	162.4	163.0	163.4	164.5	165.3
55°	152.6	151.5	150.3	149.8	149.4	149.8	151.3	151.7	152.6	153.2	153.8
57.5°	140.0	139.2	138.3	137.9	137.9	138.1	139.2	140.2	140.4	142.3	143.1
60°	127.6	126.2	125.5	125.5	125.1	126.8	126.4	128.3	128.7	129.9	131.2
62.5°	114.7	112.8	112.6	112.6	113.4	113.6	114.3	114.9	116.1	117.6	118.6
65°	100.7	99.8	101.1	100.9	100.6	101.7	101.7	102.7	103.8	105.1	107.3
67.5°	87.7	87.0	87.3	87.1	87.7	88.5	89.1	89.8	91.2	92.7	94.0
70°	74.5	75.1	74.1	74.9	75.5	75.7	76.0	77.2	78.7	79.7	81.2
72.5°	61.7	61.5	61.9	62.1	62.6	63.0	63.4	64.7	66.5	67.2	68.4
75°	49.4	49.2	49.8	49.8	50.8	51.1	51.5	52.1	53.6	54.8	55.7
77.5°	38.3	38.5	38.3	39.1	38.7	38.9	40.0	40.6	40.8	43.3	43.7
80°	27.2	27.6	27.8	28.0	28.2	27.8	29.1	29.7	29.7	31.0	32.0
82.5°	17.6	17.8	18.4	18.6	18.6	19.2	19.0	19.3	19.9	20.3	21.6
85°	9.8	10.3	10.5	10.3	10.5	10.2	10.7	10.9	11.1	11.1	11.1
87.5°	3.8	4.0	3.8	4.0	3.8	4.0	4.0	3.6	3.6	4.2	3.4
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: P273728

CATALOG NUMBER: 4RCG-4-34D-L935-A

CANDELA DISTRIBUTION (continued):

	165°	170°	175°	180°
0°	395.3	395.3	395.3	395.3
2.5°	373.7	373.5	374.8	373.9
5°	351.8	352.4	350.5	350.5
7.5°	332.1	331.3	331.5	330.2
10°	314.3	313.1	312.8	313.0
12.5°	299.5	299.5	296.5	296.5
15°	288.6	285.0	284.6	285.8
17.5°	276.6	274.5	274.6	274.3
20°	267.4	266.2	266.0	264.7
22.5°	258.9	258.8	258.9	257.4
25°	252.2	253.2	252.4	252.4
27.5°	247.6	247.6	247.1	247.1
30°	242.3	242.1	242.5	242.5
32.5°	236.9	237.3	237.3	237.5
35°	231.4	231.6	232.1	231.7
37.5°	224.1	225.0	224.9	225.2
40°	215.7	216.2	216.0	216.0
42.5°	207.0	207.4	206.8	206.5
45°	197.5	197.1	197.7	196.9
47.5°	186.9	187.1	187.3	188.1
50°	176.4	177.5	177.5	177.4
52.5°	166.1	166.4	167.4	167.4
55°	155.3	155.7	156.1	156.3
57.5°	144.4	144.2	145.0	145.2
60°	132.7	132.7	134.3	134.8
62.5°	120.3	121.0	122.6	121.4
65°	108.2	109.7	109.6	110.3
67.5°	95.6	96.5	98.1	98.1
70°	82.7	83.7	84.5	85.0
72.5°	70.3	70.7	72.8	71.6
75°	57.1	58.4	59.6	59.0
77.5°	44.4	46.2	46.5	46.0
80°	33.3	33.1	34.3	34.1
82.5°	22.2	22.0	22.4	22.6
85°	11.9	12.4	11.7	11.5
87.5°	3.4	3.4	3.3	3.1
90°	0.0	0.0	0.0	0.0

(END OF REPORT)