

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: P273725

Luminaire Tested: **4RCG-4-34D-L930-A**

Issue Date: 3/3/2020

Test Information

Test Method: LM-41-14
Report Number: P273725
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-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

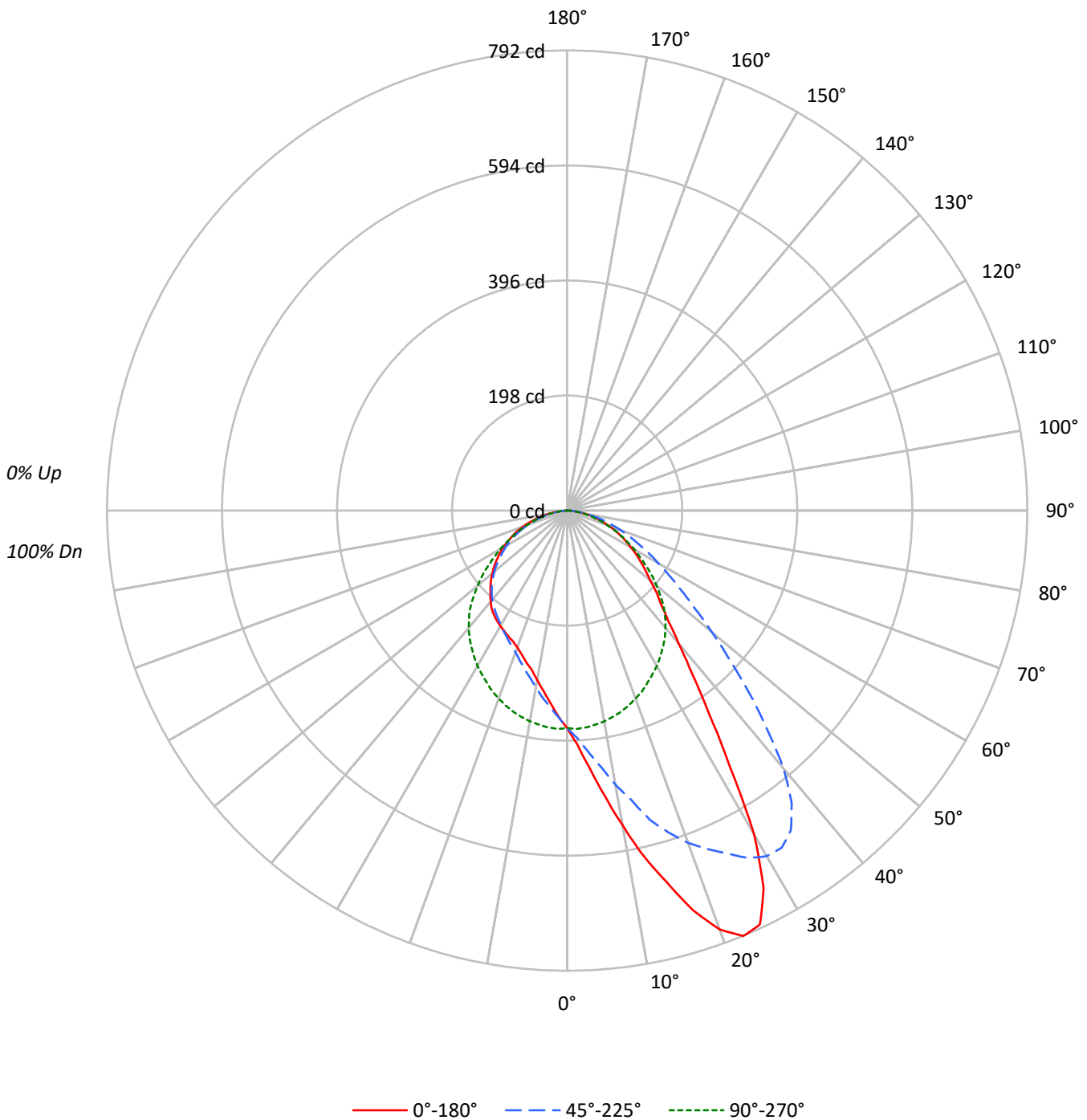
Lumens per Lamp: N/A
Luminaire Lumens: 1129.8 lumens
Efficiency: N/A
Efficacy: 99.1 lumens/watt
Spacing Criteria (0/90/45): 1.37 / 1.23 / 1.5
Luminous Opening: Rectangular (W 3.88' x L: 0.23' x H: 0')
CIE Type: Direct

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	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					85			
2	100	93	86	81	98	91	85	80	87	82	78	84	80	76	81	78	74	72					72			
3	92	82	74	68	89	80	73	67	77	71	66	75	69	65	72	68	64	62					62			
4	84	73	65	58	82	72	64	58	69	62	57	67	61	56	65	60	56	53					53			
5	78	66	57	51	76	64	56	50	62	55	50	60	54	49	59	53	49	47					47			
6	72	59	51	44	70	58	50	44	56	49	44	55	48	43	53	48	43	41					41			
7	67	54	45	39	65	53	45	39	52	44	39	50	44	39	49	43	38	36					36			
8	62	49	41	35	61	49	41	35	47	40	35	46	39	35	45	39	35	33					33			
9	58	45	37	32	57	45	37	32	43	36	32	42	36	31	41	36	31	29					29			
10	55	42	34	29	53	41	34	29	40	33	29	39	33	29	38	33	28	27					27			

AVERAGE LUMINANCE (cd/sqm):

	0°	90°	180°
0°	4537	4537	4537
5°	5411	4557	4038
10°	6772	4533	3647
15°	8307	4497	3396
20°	9896	4440	3233
25°	10508	4371	3196
30°	9007	4321	3214
35°	6264	4248	3247
40°	4718	4165	3237
45°	3917	4039	3195
50°	3509	3783	3166
55°	3280	3506	3128
60°	3079	3219	3096
65°	2891	2934	2997
70°	2711	2608	2853
75°	2431	2285	2618
80°	2129	1871	2255
85°	1669	1363	1516



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	36.8	3.3
10°-20°	118.2	10.5
20°-30°	199.0	17.6
30°-40°	224.9	19.9
40°-50°	201.4	17.8
50°-60°	162.6	14.4
60°-70°	113.3	10.0
70°-80°	59.5	5.3
80°-90°	14.2	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°	354.0	31.3
0°-40°	578.9	51.2
0°-60°	942.8	83.5
0°-90°	1129.8	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1129.8	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	374	374	374	374	374	
5°	445	417	374	339	332	46
15°	662	551	358	283	271	191
25°	786	651	327	243	239	347
35°	423	671	287	215	219	273
45°	228	442	236	184	186	180
55°	155	240	166	142	148	139
65°	101	135	102	96	104	100
75°	52	64	49	48	56	55
85°	12	14	10	10	11	15
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°	374.3	374.3	374.3	374.3	374.3	374.3	374.3	374.3	374.3	374.3	374.3
2.5°	403.0	402.6	401.7	402.4	401.0	399.0	398.8	397.0	391.7	391.4	389.9
5°	444.7	443.2	443.1	442.9	440.3	436.9	430.4	429.8	421.1	416.8	411.5
7.5°	495.1	494.6	493.1	491.5	483.0	478.8	472.6	464.6	454.5	444.7	438.5
10°	550.2	556.2	548.8	543.7	539.0	530.1	519.8	506.9	494.0	479.0	467.5
12.5°	609.4	611.5	611.5	606.8	598.9	584.2	563.9	549.3	537.7	510.2	500.4
15°	662.0	673.0	666.0	649.6	650.0	637.1	613.2	586.9	572.9	551.0	521.1
17.5°	721.5	723.4	721.3	706.0	698.6	679.9	658.3	633.9	607.6	580.9	549.9
20°	767.2	766.1	759.7	752.6	737.1	723.3	699.1	671.0	634.8	608.6	574.0
22.5°	792.5	790.6	788.4	782.8	770.4	755.4	734.3	703.0	668.9	630.4	589.1
25°	785.7	788.0	788.4	786.7	782.2	773.3	756.3	731.8	697.3	651.1	609.4
27.5°	732.3	738.3	745.9	751.0	759.2	764.6	759.2	743.8	715.5	674.1	622.8
30°	643.5	636.2	654.2	676.8	692.3	719.5	734.7	735.6	721.3	687.0	637.3
32.5°	520.1	531.9	537.4	566.6	604.8	636.2	670.3	700.6	707.7	687.7	645.8
35°	423.3	433.3	447.8	462.3	498.6	529.8	583.1	629.5	666.5	671.4	644.7
37.5°	351.8	357.6	366.5	381.9	406.8	445.4	487.7	548.1	599.0	634.9	631.3
40°	298.2	299.6	309.9	321.0	340.2	370.7	407.9	459.8	524.0	579.6	602.8
42.5°	257.9	261.5	264.4	274.9	289.3	310.3	344.2	384.8	442.3	508.5	559.5
45°	228.5	232.1	234.9	241.9	252.8	268.2	292.4	331.5	376.3	442.5	503.6
47.5°	208.2	207.8	210.2	215.8	223.6	236.0	253.7	279.8	322.8	378.1	442.2
50°	186.1	189.0	189.7	193.9	199.7	208.2	222.3	243.7	277.5	324.6	382.3
52.5°	170.5	170.8	173.2	175.9	180.8	187.0	198.8	214.4	239.0	277.5	329.4
55°	155.2	155.2	157.2	159.6	162.5	168.5	176.6	189.0	209.1	240.3	284.2
57.5°	141.1	141.8	143.6	144.2	146.7	150.9	158.0	167.8	183.2	208.4	244.7
60°	127.0	128.6	128.4	129.9	132.0	135.1	140.9	148.5	162.0	181.2	210.6
62.5°	114.6	114.1	114.1	115.9	118.1	121.0	124.2	130.6	141.5	158.0	181.9
65°	100.8	100.5	101.7	102.8	103.6	105.7	108.6	114.4	122.1	134.8	154.2
67.5°	88.9	87.8	88.7	89.0	90.3	92.1	95.0	98.7	104.8	115.5	131.1
70°	76.5	75.6	75.4	75.8	76.9	78.2	80.2	83.6	89.2	97.4	108.1
72.5°	63.8	63.3	63.3	64.2	64.6	65.3	66.6	69.6	73.8	79.4	89.2
75°	51.9	51.9	51.9	52.1	52.6	53.3	54.4	56.0	59.5	63.8	70.5
77.5°	41.0	41.2	40.8	40.6	41.5	41.9	42.1	43.9	45.9	49.1	54.4
80°	30.5	29.6	29.9	30.5	30.8	31.0	31.6	31.9	33.6	35.2	38.6
82.5°	20.7	19.9	19.9	20.9	20.9	21.0	21.6	22.1	22.5	23.9	25.4
85°	12.0	12.0	12.2	12.2	12.3	12.2	12.7	12.9	12.9	13.8	14.9
87.5°	5.4	5.1	5.3	5.4	5.3	5.4	5.6	5.8	6.0	6.2	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):

	55°	60°	65°	70°	75°	80°	85°	90°	95°	100°	105°
0°	374.3	374.3	374.3	374.3	374.3	374.3	374.3	374.3	374.3	374.3	374.3
2.5°	388.8	387.4	385.9	383.4	381.2	378.1	377.2	376.1	372.9	370.0	367.8
5°	409.5	405.2	398.8	393.0	388.3	381.9	378.3	374.5	369.1	364.2	360.2
7.5°	429.3	421.7	412.8	403.2	393.9	385.0	378.0	371.6	364.5	357.6	352.4
10°	453.8	441.4	427.6	412.8	400.1	387.7	377.4	368.3	358.6	350.0	343.0
12.5°	481.7	461.9	441.6	422.8	407.2	388.8	375.8	363.6	352.2	341.5	333.3
15°	502.6	479.3	456.8	432.0	409.2	387.7	372.9	358.4	345.5	335.0	324.8
17.5°	523.2	497.8	469.2	439.3	412.4	387.7	367.4	351.8	336.1	323.4	313.6
20°	540.3	510.3	476.8	445.4	415.0	386.7	363.8	344.2	326.8	313.2	301.8
22.5°	555.0	518.7	483.7	449.6	414.8	383.8	357.1	336.8	317.6	304.3	292.0
25°	564.2	522.3	487.5	448.1	410.2	378.7	349.7	326.8	308.0	292.4	279.8
27.5°	572.9	521.8	482.4	440.0	404.8	373.4	342.2	317.7	298.0	281.1	268.2
30°	581.6	522.7	473.5	431.6	396.1	363.4	333.3	308.7	287.6	270.4	258.4
32.5°	587.1	522.1	465.4	420.0	382.3	354.4	323.7	298.0	276.2	259.3	247.9
35°	588.5	519.1	455.8	403.2	367.3	339.1	313.6	287.1	264.4	248.6	235.6
37.5°	585.4	513.4	445.2	387.9	349.1	321.2	298.9	276.2	254.4	236.9	225.4
40°	575.5	508.0	432.5	371.6	330.3	303.6	285.3	263.2	241.8	225.3	214.7
42.5°	556.4	496.9	418.6	353.5	310.7	284.0	267.5	249.9	230.0	214.7	204.2
45°	523.0	479.9	404.6	335.3	291.4	263.9	249.0	235.6	217.3	202.2	193.1
47.5°	480.4	456.8	384.5	316.3	271.3	244.7	229.1	218.0	203.7	191.5	182.6
50°	435.6	427.1	364.0	296.7	251.2	225.3	210.4	200.6	191.0	178.8	170.8
52.5°	383.9	392.6	340.1	276.4	230.7	205.3	191.5	184.3	175.7	166.3	159.6
55°	336.1	355.1	311.8	253.2	210.4	186.1	172.8	165.9	160.9	153.4	147.4
57.5°	289.6	313.9	282.4	229.8	190.4	169.2	156.2	148.4	145.1	140.9	136.0
60°	249.2	273.1	250.5	206.2	170.3	150.3	139.1	132.8	129.5	126.8	122.8
62.5°	213.1	237.4	219.3	182.3	150.5	132.4	123.0	116.8	114.4	113.4	110.1
65°	180.6	201.5	188.8	157.2	131.8	115.5	106.6	102.3	99.9	99.4	97.2
67.5°	152.5	168.7	158.9	135.1	114.4	99.6	91.8	88.0	86.0	85.8	84.0
70°	125.0	139.8	132.8	111.7	94.5	83.4	76.9	73.6	72.5	72.4	71.5
72.5°	103.6	112.8	107.5	90.9	78.5	68.7	64.4	60.9	59.7	60.0	59.5
75°	79.8	87.6	84.3	72.2	61.5	55.0	51.0	48.8	47.7	48.2	47.5
77.5°	60.9	66.4	63.1	53.9	47.0	42.1	39.0	37.5	36.5	36.5	36.1
80°	43.3	46.2	44.6	39.5	34.1	30.1	27.7	26.8	26.3	26.1	25.9
82.5°	27.7	30.1	28.1	25.0	21.8	19.8	18.7	17.4	17.0	17.2	17.0
85°	15.6	16.5	15.8	13.6	12.2	11.1	10.3	9.8	9.4	9.6	9.2
87.5°	6.7	6.9	6.3	5.6	5.3	4.7	4.7	4.4	4.0	4.0	3.8
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°	374.3	374.3	374.3	374.3	374.3	374.3	374.3	374.3	374.3	374.3	374.3
2.5°	366.5	365.3	363.4	360.7	358.6	355.1	355.1	355.6	355.6	355.5	355.1
5°	356.9	354.2	350.9	347.1	343.1	339.1	338.4	337.0	335.9	335.2	334.2
7.5°	347.1	342.6	338.1	332.8	328.3	324.5	321.7	319.4	317.9	316.3	315.0
10°	337.2	331.2	325.5	319.9	313.8	308.9	305.8	303.6	302.0	300.5	299.8
12.5°	325.4	318.3	311.9	306.7	299.8	294.7	291.8	291.1	289.1	285.6	283.8
15°	313.9	307.6	300.2	292.0	288.7	282.6	279.1	277.5	276.4	274.0	273.3
17.5°	304.5	296.0	287.5	281.5	275.5	270.6	268.6	266.4	265.0	262.8	262.2
20°	292.7	285.3	277.7	271.1	264.8	259.3	257.7	256.3	254.8	253.9	253.2
22.5°	280.7	273.3	267.3	261.3	254.4	251.4	249.6	247.9	247.0	246.5	245.7
25°	269.7	263.2	256.1	250.6	245.2	242.8	241.8	240.8	240.1	239.2	239.0
27.5°	259.9	252.6	246.7	241.4	237.4	235.4	234.1	233.6	233.6	234.0	234.1
30°	248.6	242.1	237.4	233.0	229.4	227.6	227.4	227.4	228.2	228.3	228.7
32.5°	238.3	233.2	228.5	224.3	221.8	220.7	221.6	221.6	222.2	222.7	223.4
35°	228.3	223.6	220.0	216.4	214.0	214.6	214.9	215.3	216.2	217.3	218.0
37.5°	218.9	214.6	210.7	207.8	206.4	207.5	208.4	209.1	210.2	211.1	211.8
40°	208.6	205.5	201.9	199.3	199.7	200.2	200.9	201.9	202.8	203.3	204.0
42.5°	199.0	195.7	193.1	191.2	191.7	192.4	192.8	193.1	194.2	195.3	195.7
45°	189.2	186.6	184.1	182.8	183.2	183.5	183.9	184.4	185.4	186.1	186.3
47.5°	178.1	176.3	174.7	173.2	173.9	173.7	174.3	175.4	175.7	176.1	177.2
50°	167.6	165.9	164.0	163.6	163.6	163.6	163.8	165.2	165.2	165.9	166.7
52.5°	156.0	155.1	154.0	153.3	152.9	152.9	153.8	154.3	154.7	155.8	156.5
55°	144.5	143.5	142.4	141.8	141.5	141.8	143.3	143.6	144.5	145.1	145.6
57.5°	132.6	131.8	130.9	130.6	130.6	130.8	131.8	132.8	132.9	134.8	135.5
60°	120.8	119.5	118.8	118.8	118.4	120.1	119.7	121.5	121.9	123.0	124.2
62.5°	108.6	106.8	106.6	106.6	107.4	107.5	108.3	108.8	109.9	111.4	112.3
65°	95.4	94.5	95.8	95.6	95.2	96.3	96.3	97.2	98.3	99.6	101.6
67.5°	83.1	82.3	82.7	82.5	83.1	83.8	84.3	85.1	86.3	87.8	89.0
70°	70.5	71.1	70.2	70.9	71.5	71.6	72.0	73.1	74.5	75.4	76.9
72.5°	58.4	58.2	58.6	58.8	59.3	59.7	60.0	61.3	62.9	63.7	64.7
75°	46.8	46.6	47.2	47.2	48.1	48.4	48.8	49.3	50.8	51.9	52.8
77.5°	36.3	36.5	36.3	37.0	36.6	36.8	37.9	38.4	38.6	41.0	41.4
80°	25.8	26.1	26.3	26.5	26.7	26.3	27.6	28.1	28.1	29.4	30.3
82.5°	16.7	16.9	17.4	17.6	17.6	18.1	18.0	18.3	18.9	19.2	20.5
85°	9.2	9.8	10.0	9.8	10.0	9.6	10.2	10.3	10.5	10.5	10.5
87.5°	3.6	3.8	3.6	3.8	3.6	3.8	3.8	3.4	3.4	4.0	3.3
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: P273725

CATALOG NUMBER: 4RCG-4-34D-L930-A

CANDELA DISTRIBUTION (continued):

	165°	170°	175°	180°
0°	374.3	374.3	374.3	374.3
2.5°	353.8	353.7	354.9	354.0
5°	333.2	333.7	331.9	331.9
7.5°	314.5	313.8	313.9	312.7
10°	297.6	296.5	296.2	296.3
12.5°	283.6	283.6	280.7	280.7
15°	273.3	269.9	269.5	270.6
17.5°	261.9	259.9	260.1	259.7
20°	253.2	252.1	251.9	250.6
22.5°	245.2	245.0	245.2	243.7
25°	238.9	239.8	239.0	239.0
27.5°	234.5	234.5	234.0	234.0
30°	229.4	229.2	229.6	229.6
32.5°	224.3	224.7	224.7	224.9
35°	219.1	219.3	219.8	219.4
37.5°	212.2	213.1	212.9	213.3
40°	204.2	204.8	204.6	204.6
42.5°	196.1	196.4	195.9	195.5
45°	187.0	186.6	187.2	186.4
47.5°	177.0	177.2	177.4	178.1
50°	167.0	168.1	168.1	167.9
52.5°	157.2	157.6	158.5	158.5
55°	147.1	147.4	147.8	148.0
57.5°	136.7	136.6	137.3	137.5
60°	125.7	125.7	127.1	127.7
62.5°	113.9	114.6	116.1	115.0
65°	102.5	103.9	103.7	104.5
67.5°	90.5	91.4	92.9	92.9
70°	78.3	79.3	80.0	80.5
72.5°	66.6	66.9	68.9	67.8
75°	54.0	55.3	56.4	55.9
77.5°	42.1	43.7	44.1	43.5
80°	31.6	31.4	32.5	32.3
82.5°	21.0	20.9	21.2	21.4
85°	11.2	11.8	11.1	10.9
87.5°	3.3	3.3	3.1	2.9
90°	0.0	0.0	0.0	0.0

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