

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: P273719

Luminaire Tested: **4RCG-4-34D-L840-A**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-41-14  
Report Number: P273719  
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-L840-A  
Description: RCG SERIES DIRECT RECESSED LED LUMINAIRE WITH ASYMMETRIC FLUSH LENS  
Light Source: (168) 4000K CCT, 80 CRI LEDS  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

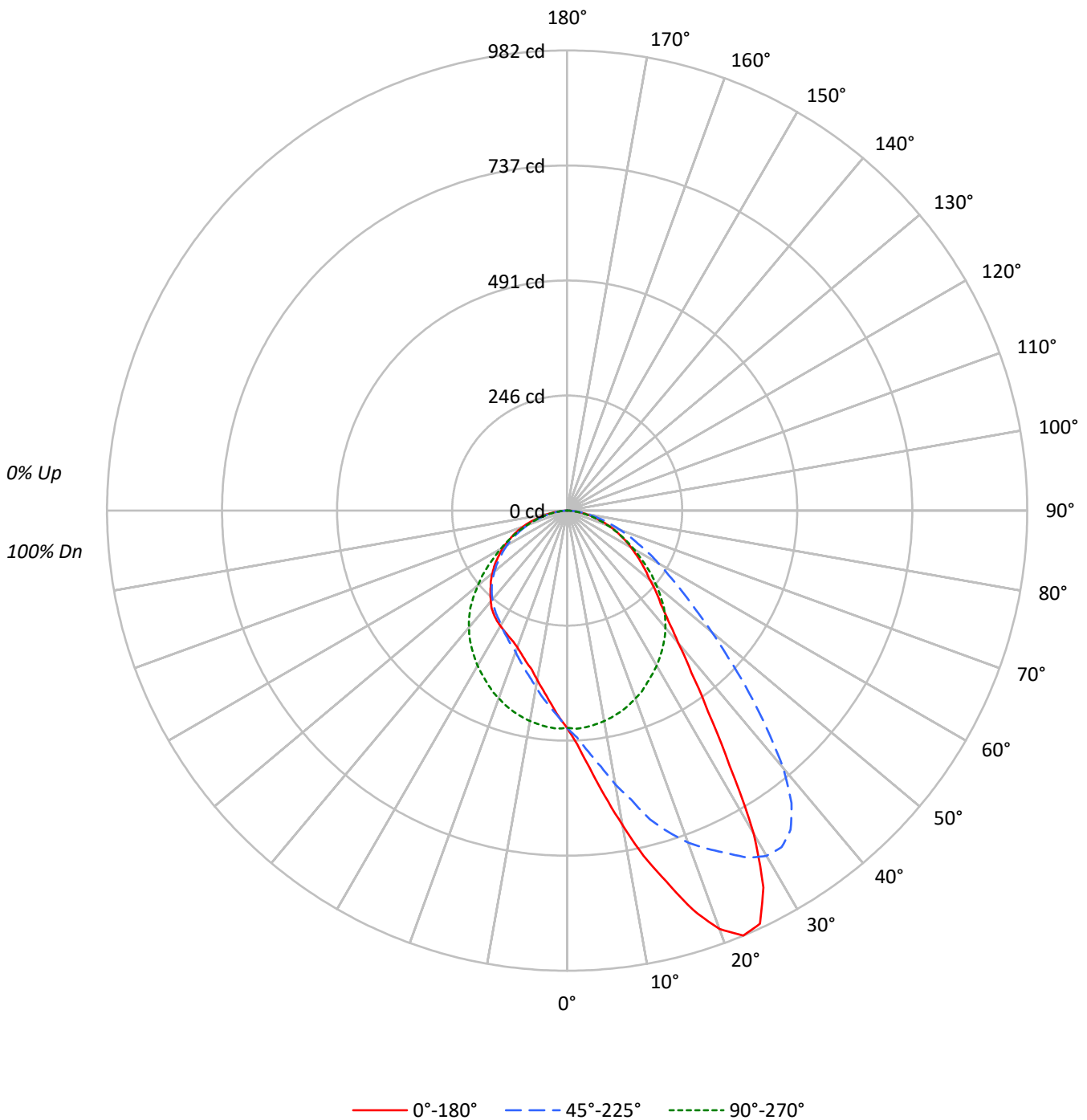
Lumens per Lamp: N/A  
Luminaire Lumens: 1399.4 lumens  
Efficiency: N/A  
Efficacy: 122.8 lumens/watt  
Spacing Criteria (0/90/45): 1.37 / 1.23 / 1.5  
Luminous Opening: Rectangular (W 3.88' x L: 0.23' x H: 0')  
CIE Type: Direct

Input Watts (W): 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°	5621	5621	5621
5°	6702	5645	5002
10°	8389	5615	4518
15°	10289	5570	4206
20°	12257	5500	4005
25°	13015	5414	3960
30°	11155	5351	3981
35°	7758	5262	4022
40°	5843	5158	4010
45°	4851	5002	3958
50°	4347	4686	3922
55°	4064	4343	3874
60°	3811	3985	3833
65°	3582	3634	3711
70°	3360	3232	3533
75°	3007	2829	3241
80°	2632	2317	2792
85°	2058	1683	1878



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	45.6	3.3
10°-20°	146.5	10.5
20°-30°	246.4	17.6
30°-40°	278.5	19.9
40°-50°	249.5	17.8
50°-60°	201.4	14.4
60°-70°	140.3	10.0
70°-80°	73.6	5.3
80°-90°	17.6	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°	438.5	31.3
0°-40°	717.0	51.2
0°-60°	1167.9	83.5
0°-90°	1399.4	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1399.4	100.0

**CANDELA DISTRIBUTION:**

	0°	45°	90°	135°	180°	Flux
0°	464	464	464	464	464	
5°	551	516	464	420	411	57
15°	820	682	444	350	335	237
25°	973	806	405	301	296	430
35°	524	832	356	266	272	338
45°	283	548	292	227	231	223
55°	192	298	206	176	183	173
65°	125	167	127	119	129	124
75°	64	79	60	60	69	69
85°	15	17	12	12	14	18
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°	463.7	463.7	463.7	463.7	463.7	463.7	463.7	463.7	463.7	463.7	463.7
2.5°	499.2	498.7	497.6	498.5	496.7	494.2	494.0	491.7	485.2	484.8	483.0
5°	550.8	549.0	548.8	548.6	545.4	541.2	533.1	532.4	521.6	516.2	509.7
7.5°	613.3	612.6	610.8	608.8	598.2	593.1	585.4	575.5	563.0	550.8	543.2
10°	681.6	689.0	679.8	673.5	667.6	656.6	643.8	627.9	611.9	593.3	579.1
12.5°	754.8	757.5	757.5	751.7	741.8	723.6	698.4	680.4	666.1	631.9	619.8
15°	819.9	833.6	824.9	804.7	805.1	789.2	759.5	726.9	709.6	682.5	645.4
17.5°	893.6	896.1	893.4	874.5	865.3	842.2	815.4	785.1	752.5	719.5	681.1
20°	950.2	948.9	941.0	932.3	912.9	895.9	866.0	831.2	786.2	753.9	711.0
22.5°	981.7	979.2	976.5	969.6	954.3	935.6	909.6	870.7	828.5	780.9	729.6
25°	973.1	976.1	976.5	974.5	968.9	957.9	936.8	906.4	863.7	806.5	754.8
27.5°	907.1	914.5	924.0	930.2	940.3	947.1	940.3	921.3	886.2	835.0	771.4
30°	797.0	788.0	810.3	838.4	857.5	891.2	910.0	911.1	893.4	850.9	789.4
32.5°	644.3	658.9	665.6	701.8	749.2	788.0	830.3	867.8	876.6	851.8	799.9
35°	524.3	536.7	554.6	572.6	617.5	656.2	722.2	779.7	825.6	831.6	798.6
37.5°	435.8	443.0	454.0	473.1	503.9	551.7	604.1	678.9	742.0	786.5	782.0
40°	369.3	371.1	383.9	397.6	421.4	459.2	505.2	569.5	649.0	718.0	746.7
42.5°	319.4	323.9	327.5	340.6	358.3	384.4	426.4	476.7	547.9	629.9	693.0
45°	283.0	287.5	290.9	299.7	313.2	332.2	362.1	410.6	466.1	548.1	623.8
47.5°	257.9	257.4	260.4	267.3	277.0	292.3	314.3	346.6	399.9	468.4	547.7
50°	230.5	234.1	235.0	240.1	247.3	257.9	275.4	301.9	343.7	402.1	473.5
52.5°	211.2	211.6	214.5	217.9	224.0	231.6	246.2	265.5	296.1	343.7	407.9
55°	192.3	192.3	194.8	197.7	201.3	208.7	218.8	234.1	259.0	297.7	352.0
57.5°	174.8	175.7	177.9	178.6	181.7	186.9	195.7	207.8	226.9	258.1	303.0
60°	157.2	159.3	159.0	160.8	163.5	167.4	174.5	184.0	200.6	224.4	260.8
62.5°	142.0	141.3	141.3	143.5	146.2	149.8	153.9	161.7	175.2	195.7	225.3
65°	124.9	124.5	126.0	127.4	128.3	131.0	134.6	141.7	151.2	166.9	190.9
67.5°	110.1	108.7	109.8	110.3	111.9	114.1	117.7	122.2	129.8	143.1	162.4
70°	94.8	93.7	93.5	93.9	95.2	96.8	99.3	103.6	110.5	120.6	133.9
72.5°	79.1	78.4	78.4	79.5	80.0	80.9	82.4	86.3	91.4	98.4	110.5
75°	64.2	64.2	64.2	64.5	65.1	66.0	67.4	69.4	73.7	79.1	87.4
77.5°	50.8	51.0	50.5	50.3	51.4	51.9	52.1	54.4	56.8	60.9	67.4
80°	37.7	36.6	37.1	37.7	38.2	38.4	39.1	39.5	41.6	43.6	47.8
82.5°	25.6	24.7	24.7	25.8	25.8	26.1	26.7	27.4	27.9	29.7	31.4
85°	14.8	14.8	15.1	15.1	15.3	15.1	15.7	15.9	15.9	17.1	18.4
87.5°	6.7	6.3	6.5	6.7	6.5	6.7	7.0	7.2	7.4	7.6	7.9
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°	463.7	463.7	463.7	463.7	463.7	463.7	463.7	463.7	463.7	463.7	463.7
2.5°	481.6	479.8	478.0	474.9	472.2	468.4	467.3	465.9	461.9	458.3	455.6
5°	507.2	501.8	494.0	486.8	481.0	473.1	468.6	463.9	457.1	451.1	446.1
7.5°	531.7	522.3	511.3	499.4	487.9	476.9	468.2	460.3	451.5	443.0	436.5
10°	562.1	546.8	529.7	511.3	495.6	480.3	467.5	456.2	444.1	433.6	424.8
12.5°	596.6	572.2	547.0	523.6	504.3	481.6	465.5	450.4	436.3	423.0	412.9
15°	622.5	593.7	565.9	535.1	506.8	480.3	461.9	443.9	427.9	414.9	402.3
17.5°	648.1	616.6	581.1	544.1	510.8	480.3	455.1	435.8	416.3	400.5	388.4
20°	669.2	632.1	590.6	551.7	514.0	478.9	450.6	426.4	404.8	388.0	373.8
22.5°	687.4	642.5	599.1	556.9	513.8	475.3	442.3	417.2	393.3	376.9	361.7
25°	698.9	647.0	603.8	555.1	508.1	469.1	433.1	404.8	381.4	362.1	346.6
27.5°	709.6	646.3	597.5	545.0	501.4	462.5	423.9	393.6	369.1	348.2	332.2
30°	720.4	647.4	586.5	534.6	490.6	450.2	412.9	382.3	356.3	334.9	320.1
32.5°	727.2	646.7	576.4	520.3	473.5	438.9	401.0	369.1	342.1	321.2	307.1
35°	729.0	642.9	564.5	499.4	454.9	420.1	388.4	355.6	327.5	308.0	291.8
37.5°	725.1	636.0	551.5	480.5	432.4	397.8	370.2	342.1	315.2	293.4	279.2
40°	712.8	629.2	535.8	460.3	409.1	376.1	353.4	326.0	299.4	279.0	266.0
42.5°	689.2	615.5	518.5	437.8	384.8	351.8	331.3	309.6	284.8	266.0	252.9
45°	647.9	594.4	501.2	415.4	361.0	326.9	308.4	291.8	269.1	250.5	239.2
47.5°	595.1	565.9	476.2	391.8	336.1	303.0	283.7	270.0	252.3	237.2	226.2
50°	539.6	529.0	450.9	367.5	311.1	279.0	260.6	248.5	236.5	221.5	211.6
52.5°	475.6	486.3	421.2	342.4	285.7	254.3	237.2	228.2	217.7	206.0	197.7
55°	416.3	439.8	386.2	313.6	260.6	230.5	214.1	205.5	199.3	190.0	182.6
57.5°	358.8	388.9	349.8	284.6	235.9	209.6	193.4	183.8	179.7	174.5	168.5
60°	308.7	338.3	310.2	255.4	210.9	186.2	172.3	164.4	160.4	157.0	152.1
62.5°	264.0	294.1	271.6	225.8	186.5	164.0	152.3	144.7	141.7	140.4	136.4
65°	223.7	249.6	233.9	194.8	163.3	143.1	132.1	126.7	123.8	123.1	120.4
67.5°	188.9	208.9	196.8	167.4	141.7	123.3	113.7	109.0	106.5	106.3	104.0
70°	154.8	173.2	164.4	138.4	117.0	103.3	95.2	91.2	89.9	89.6	88.5
72.5°	128.3	139.7	133.2	112.5	97.3	85.1	79.7	75.5	73.9	74.4	73.7
75°	98.8	108.5	104.5	89.4	76.2	68.1	63.1	60.4	59.1	59.8	58.9
77.5°	75.5	82.2	78.2	66.7	58.2	52.1	48.3	46.5	45.2	45.2	44.7
80°	53.7	57.3	55.3	49.0	42.2	37.3	34.4	33.2	32.6	32.3	32.1
82.5°	34.4	37.3	34.8	31.0	27.0	24.5	23.1	21.6	21.1	21.3	21.1
85°	19.3	20.4	19.5	16.8	15.1	13.7	12.8	12.1	11.7	11.9	11.5
87.5°	8.3	8.5	7.9	7.0	6.5	5.8	5.8	5.4	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



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**CANDELA DISTRIBUTION (continued):**

	110°	115°	120°	125°	130°	135°	140°	145°	150°	155°	160°
0°	463.7	463.7	463.7	463.7	463.7	463.7	463.7	463.7	463.7	463.7	463.7
2.5°	454.0	452.4	450.2	446.8	444.1	439.8	439.8	440.5	440.5	440.3	439.8
5°	442.1	438.7	434.7	430.0	425.0	420.1	419.2	417.4	416.0	415.1	414.0
7.5°	430.0	424.3	418.7	412.2	406.6	401.9	398.5	395.6	393.8	391.8	390.2
10°	417.6	410.2	403.2	396.3	388.6	382.6	378.7	376.1	374.0	372.2	371.3
12.5°	403.0	394.2	386.4	379.9	371.3	365.0	361.4	360.5	358.1	353.8	351.6
15°	388.9	381.0	371.8	361.7	357.6	350.0	345.7	343.7	342.4	339.4	338.5
17.5°	377.2	366.6	356.1	348.6	341.2	335.2	332.7	330.0	328.2	325.5	324.8
20°	362.6	353.4	343.9	335.8	328.0	321.2	319.2	317.4	315.6	314.5	313.6
22.5°	347.7	338.5	331.1	323.7	315.2	311.4	309.1	307.1	306.0	305.3	304.4
25°	334.0	326.0	317.2	310.5	303.7	300.8	299.4	298.3	297.4	296.3	296.1
27.5°	321.9	312.9	305.5	299.0	294.1	291.6	290.0	289.3	289.3	289.8	290.0
30°	308.0	299.9	294.1	288.7	284.2	281.9	281.7	281.7	282.6	282.8	283.3
32.5°	295.2	288.9	283.0	277.9	274.7	273.4	274.5	274.5	275.2	275.9	276.8
35°	282.8	277.0	272.5	268.0	265.1	265.8	266.2	266.6	267.8	269.1	270.0
37.5°	271.1	265.8	261.0	257.4	255.6	257.0	258.1	259.0	260.4	261.5	262.4
40°	258.3	254.5	250.0	246.9	247.3	248.0	248.9	250.0	251.1	251.8	252.7
42.5°	246.4	242.4	239.2	236.8	237.4	238.3	238.8	239.2	240.6	241.9	242.4
45°	234.3	231.2	228.0	226.4	226.9	227.3	227.8	228.5	229.6	230.5	230.7
47.5°	220.6	218.4	216.3	214.5	215.4	215.2	215.9	217.2	217.7	218.1	219.5
50°	207.6	205.5	203.1	202.6	202.6	202.6	202.9	204.6	204.6	205.5	206.4
52.5°	193.2	192.1	190.7	189.8	189.4	189.4	190.5	191.2	191.6	193.0	193.9
55°	179.0	177.7	176.3	175.7	175.2	175.7	177.5	177.9	179.0	179.7	180.4
57.5°	164.2	163.3	162.2	161.7	161.7	162.0	163.3	164.4	164.7	166.9	167.8
60°	149.6	148.0	147.1	147.1	146.7	148.7	148.3	150.5	151.0	152.3	153.9
62.5°	134.6	132.3	132.1	132.1	133.0	133.2	134.1	134.8	136.1	137.9	139.1
65°	118.2	117.0	118.6	118.4	117.9	119.3	119.3	120.4	121.8	123.3	125.8
67.5°	102.9	102.0	102.4	102.2	102.9	103.8	104.5	105.4	106.9	108.7	110.3
70°	87.4	88.1	86.9	87.8	88.5	88.7	89.2	90.5	92.3	93.5	95.2
72.5°	72.3	72.1	72.6	72.8	73.5	73.9	74.4	75.9	78.0	78.8	80.2
75°	58.0	57.7	58.4	58.4	59.5	60.0	60.4	61.1	62.9	64.2	65.4
77.5°	44.9	45.2	44.9	45.8	45.4	45.6	47.0	47.6	47.8	50.8	51.2
80°	31.9	32.3	32.6	32.8	33.0	32.6	34.1	34.8	34.8	36.4	37.5
82.5°	20.7	20.9	21.6	21.8	21.8	22.5	22.2	22.7	23.4	23.8	25.4
85°	11.5	12.1	12.4	12.1	12.4	11.9	12.6	12.8	13.0	13.0	13.0
87.5°	4.5	4.7	4.5	4.7	4.5	4.7	4.7	4.3	4.3	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: P273719

CATALOG NUMBER: 4RCG-4-34D-L840-A

**CANDELA DISTRIBUTION (continued):**

	165°	170°	175°	180°
0°	463.7	463.7	463.7	463.7
2.5°	438.3	438.1	439.6	438.5
5°	412.7	413.3	411.1	411.1
7.5°	389.5	388.6	388.9	387.3
10°	368.6	367.3	366.8	367.1
12.5°	351.3	351.3	347.7	347.7
15°	338.5	334.3	333.8	335.2
17.5°	324.4	321.9	322.1	321.7
20°	313.6	312.3	312.0	310.5
22.5°	303.7	303.5	303.7	301.9
25°	295.9	297.0	296.1	296.1
27.5°	290.5	290.5	289.8	289.8
30°	284.2	283.9	284.4	284.4
32.5°	277.9	278.3	278.3	278.6
35°	271.4	271.6	272.3	271.8
37.5°	262.8	264.0	263.7	264.2
40°	252.9	253.6	253.4	253.4
42.5°	242.8	243.3	242.6	242.2
45°	231.6	231.2	231.8	230.9
47.5°	219.3	219.5	219.7	220.6
50°	206.9	208.2	208.2	208.0
52.5°	194.8	195.2	196.3	196.3
55°	182.2	182.6	183.1	183.3
57.5°	169.4	169.2	170.1	170.3
60°	155.7	155.7	157.5	158.1
62.5°	141.1	142.0	143.8	142.4
65°	126.9	128.7	128.5	129.4
67.5°	112.1	113.2	115.0	115.0
70°	97.0	98.2	99.1	99.7
72.5°	82.4	82.9	85.4	84.0
75°	66.9	68.5	69.9	69.2
77.5°	52.1	54.1	54.6	53.9
80°	39.1	38.9	40.2	40.0
82.5°	26.1	25.8	26.3	26.5
85°	13.9	14.6	13.7	13.5
87.5°	4.0	4.0	3.8	3.6
90°	0.0	0.0	0.0	0.0

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