

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: P273731

Luminaire Tested: **4RCG-4-34D-L940-A**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-41-14  
Report Number: P273731  
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-L940-A  
Description: RCG SERIES DIRECT RECESSED LED LUMINAIRE WITH ASYMMETRIC FLUSH LENS  
Light Source: (168) 4000K CCT, 90 CRI LEDS  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

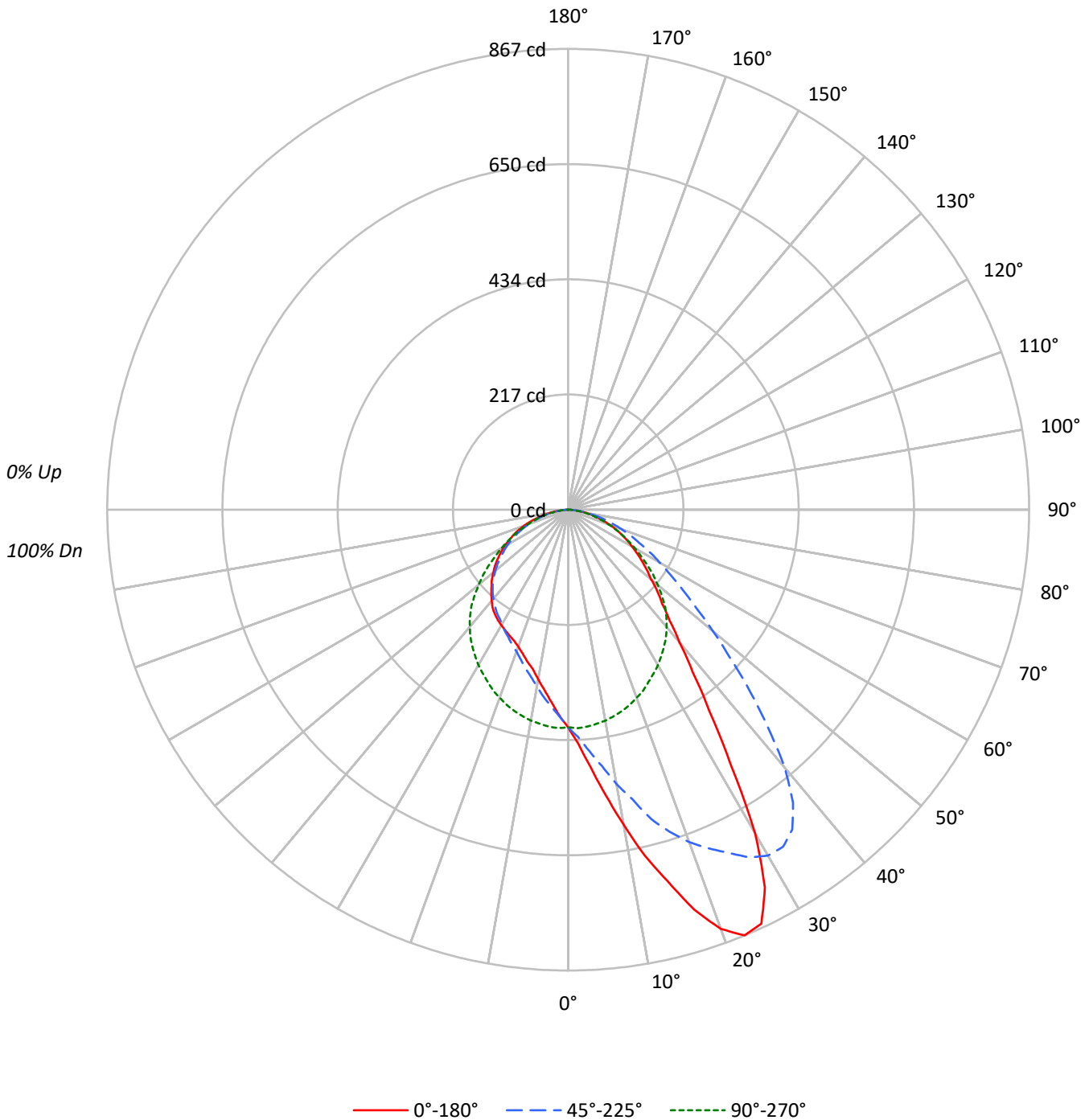
Lumens per Lamp: N/A  
Luminaire Lumens: 1235.7 lumens  
Efficiency: N/A  
Efficacy: 108.4 lumens/watt  
Spacing Criteria (0/90/45): 1.37 / 1.23 / 1.5  
Luminous Opening: Rectangular (W 3.88' x L: 0.23' x H: 0')  
CIE Type: Direct

Input Watts (W): 11.4  
Input Voltage (V): 120  
Input Current (A<sub>in</sub>): 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°	4962	4962	4962
5°	5918	4984	4417
10°	7407	4959	3989
15°	9085	4919	3714
20°	10824	4857	3536
25°	11493	4780	3496
30°	9851	4725	3514
35°	6851	4646	3551
40°	5160	4554	3540
45°	4284	4417	3495
50°	3837	4137	3464
55°	3588	3836	3421
60°	3367	3520	3384
65°	3164	3209	3278
70°	2966	2853	3122
75°	2655	2501	2861
80°	2324	2052	2464
85°	1822	1488	1655



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	40.3	3.3
10°-20°	129.3	10.5
20°-30°	217.6	17.6
30°-40°	245.9	19.9
40°-50°	220.3	17.8
50°-60°	177.8	14.4
60°-70°	123.9	10.0
70°-80°	65.0	5.3
80°-90°	15.6	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°	387.2	31.3
0°-40°	633.1	51.2
0°-60°	1031.2	83.5
0°-90°	1235.7	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1235.7	100.0

**CANDELA DISTRIBUTION:**

	0°	45°	90°	135°	180°	Flux
0°	409	409	409	409	409	
5°	486	456	410	371	363	50
15°	724	603	392	309	296	209
25°	859	712	357	266	261	380
35°	463	734	314	235	240	299
45°	250	484	258	201	204	197
55°	170	263	182	155	162	152
65°	110	147	112	105	114	110
75°	57	70	53	53	61	61
85°	13	15	11	10	12	16
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°	409.4	409.4	409.4	409.4	409.4	409.4	409.4	409.4	409.4	409.4	409.4
2.5°	440.8	440.4	439.4	440.2	438.6	436.4	436.2	434.2	428.5	428.1	426.5
5°	486.4	484.8	484.6	484.4	481.6	477.8	470.7	470.1	460.6	455.8	450.1
7.5°	541.5	540.9	539.3	537.6	528.2	523.7	516.9	508.2	497.1	486.4	479.6
10°	601.8	608.4	600.2	594.7	589.5	579.8	568.5	554.4	540.3	523.9	511.4
12.5°	666.5	668.9	668.9	663.7	655.0	638.9	616.7	600.8	588.1	558.0	547.3
15°	724.0	736.1	728.4	710.5	710.9	696.8	670.7	641.9	626.6	602.6	569.9
17.5°	789.1	791.3	788.9	772.2	764.1	743.6	720.0	693.3	664.5	635.3	601.4
20°	839.1	837.9	830.9	823.2	806.1	791.1	764.7	733.9	694.3	665.7	627.8
22.5°	866.8	864.6	862.3	856.1	842.6	826.2	803.2	768.8	731.5	689.5	644.3
25°	859.3	861.9	862.3	860.5	855.5	845.8	827.2	800.4	762.7	712.1	666.5
27.5°	801.0	807.5	815.8	821.4	830.3	836.3	830.3	813.5	782.5	737.3	681.2
30°	703.8	695.8	715.5	740.3	757.1	786.9	803.6	804.5	788.9	751.4	697.0
32.5°	568.9	581.8	587.7	619.7	661.5	695.8	733.1	766.3	774.0	752.2	706.4
35°	463.0	473.9	489.7	505.6	545.3	579.4	637.7	688.5	729.0	734.3	705.2
37.5°	384.8	391.2	400.9	417.7	444.9	487.2	533.4	599.4	655.2	694.5	690.5
40°	326.1	327.7	339.0	351.1	372.1	405.4	446.1	502.8	573.1	634.0	659.3
42.5°	282.1	286.0	289.2	300.7	316.4	339.4	376.5	420.9	483.8	556.2	611.9
45°	249.9	253.9	256.9	264.6	276.5	293.4	319.8	362.6	411.6	484.0	550.8
47.5°	227.7	227.3	229.9	236.0	244.6	258.1	277.5	306.1	353.1	413.6	483.6
50°	203.5	206.7	207.5	212.0	218.4	227.7	243.2	266.6	303.5	355.1	418.1
52.5°	186.5	186.9	189.4	192.4	197.8	204.5	217.4	234.5	261.4	303.5	360.2
55°	169.8	169.8	172.0	174.6	177.7	184.3	193.2	206.7	228.7	262.8	310.8
57.5°	154.3	155.1	157.1	157.7	160.5	165.0	172.8	183.5	200.3	227.9	267.6
60°	138.9	140.6	140.4	142.0	144.4	147.8	154.1	162.5	177.1	198.2	230.3
62.5°	125.4	124.8	124.8	126.8	129.1	132.3	135.9	142.8	154.7	172.8	199.0
65°	110.3	109.9	111.3	112.5	113.3	115.6	118.8	125.2	133.5	147.4	168.6
67.5°	97.2	96.0	97.0	97.4	98.8	100.8	103.9	107.9	114.7	126.4	143.4
70°	83.7	82.7	82.5	82.9	84.1	85.5	87.7	91.4	97.6	106.5	118.2
72.5°	69.8	69.2	69.2	70.2	70.6	71.4	72.8	76.2	80.7	86.9	97.6
75°	56.7	56.7	56.7	56.9	57.5	58.3	59.5	61.3	65.1	69.8	77.2
77.5°	44.8	45.0	44.6	44.4	45.4	45.8	46.0	48.0	50.2	53.8	59.5
80°	33.3	32.3	32.7	33.3	33.7	33.9	34.5	34.9	36.7	38.5	42.3
82.5°	22.6	21.8	21.8	22.8	22.8	23.0	23.6	24.2	24.6	26.2	27.8
85°	13.1	13.1	13.3	13.3	13.5	13.3	13.9	14.1	14.1	15.1	16.3
87.5°	6.0	5.6	5.8	6.0	5.8	6.0	6.1	6.3	6.5	6.7	6.9
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°	409.4	409.4	409.4	409.4	409.4	409.4	409.4	409.4	409.4	409.4	409.4
2.5°	425.3	423.7	422.1	419.3	416.9	413.6	412.6	411.4	407.8	404.7	402.3
5°	447.9	443.1	436.2	429.8	424.7	417.7	413.8	409.6	403.7	398.3	393.9
7.5°	469.5	461.2	451.5	441.0	430.8	421.1	413.4	406.4	398.7	391.2	385.4
10°	496.3	482.8	467.7	451.5	437.6	424.1	412.8	402.9	392.2	382.8	375.1
12.5°	526.8	505.2	483.0	462.4	445.3	425.3	411.0	397.7	385.2	373.5	364.6
15°	549.7	524.3	499.7	472.5	447.5	424.1	407.8	392.0	377.9	366.4	355.3
17.5°	572.3	544.5	513.2	480.4	451.1	424.1	401.9	384.8	367.6	353.7	343.0
20°	590.9	558.2	521.5	487.2	453.8	422.9	397.9	376.5	357.4	342.6	330.1
22.5°	607.0	567.3	529.0	491.7	453.6	419.7	390.6	368.4	347.3	332.8	319.4
25°	617.1	571.3	533.2	490.1	448.7	414.2	382.4	357.4	336.8	319.8	306.1
27.5°	626.6	570.7	527.6	481.2	442.7	408.4	374.3	347.5	325.9	307.5	293.4
30°	636.1	571.7	517.9	472.1	433.2	397.5	364.6	337.6	314.6	295.8	282.7
32.5°	642.1	571.1	509.0	459.4	418.1	387.6	354.1	325.9	302.1	283.7	271.2
35°	643.7	567.7	498.5	441.0	401.7	370.9	343.0	314.0	289.2	271.9	257.7
37.5°	640.3	561.6	487.0	424.3	381.8	351.3	326.9	302.1	278.3	259.1	246.6
40°	629.4	555.6	473.1	406.4	361.2	332.1	312.0	287.8	264.4	246.4	234.9
42.5°	608.6	543.5	457.8	386.6	339.8	310.6	292.6	273.3	251.5	234.9	223.4
45°	572.1	524.9	442.5	366.8	318.8	288.6	272.3	257.7	237.6	221.2	211.3
47.5°	525.5	499.7	420.5	345.9	296.7	267.6	250.5	238.4	222.8	209.5	199.7
50°	476.5	467.1	398.1	324.5	274.7	246.4	230.1	219.4	208.9	195.6	186.9
52.5°	419.9	429.4	371.9	302.3	252.3	224.5	209.5	201.5	192.2	181.9	174.6
55°	367.6	388.4	341.0	276.9	230.1	203.5	189.0	181.5	175.9	167.8	161.3
57.5°	316.8	343.4	308.8	251.3	208.3	185.1	170.8	162.3	158.7	154.1	148.8
60°	272.5	298.7	273.9	225.5	186.3	164.4	152.1	145.2	141.6	138.7	134.3
62.5°	233.1	259.7	239.8	199.4	164.6	144.8	134.5	127.7	125.2	124.0	120.4
65°	197.6	220.4	206.5	172.0	144.2	126.4	116.6	111.9	109.3	108.7	106.3
67.5°	166.8	184.5	173.8	147.8	125.2	108.9	100.4	96.2	94.0	93.8	91.8
70°	136.7	152.9	145.2	122.2	103.3	91.2	84.1	80.5	79.3	79.1	78.2
72.5°	113.3	123.4	117.6	99.4	85.9	75.2	70.4	66.6	65.3	65.7	65.1
75°	87.3	95.8	92.2	78.9	67.2	60.1	55.7	53.4	52.2	52.8	52.0
77.5°	66.6	72.6	69.0	58.9	51.4	46.0	42.6	41.1	39.9	39.9	39.5
80°	47.4	50.6	48.8	43.2	37.3	32.9	30.3	29.4	28.8	28.6	28.4
82.5°	30.3	32.9	30.7	27.4	23.8	21.6	20.4	19.0	18.6	18.8	18.6
85°	17.1	18.1	17.3	14.9	13.3	12.1	11.3	10.7	10.3	10.5	10.1
87.5°	7.3	7.5	6.9	6.1	5.8	5.2	5.2	4.8	4.4	4.4	4.2
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°	409.4	409.4	409.4	409.4	409.4	409.4	409.4	409.4	409.4	409.4	409.4
2.5°	400.9	399.5	397.5	394.5	392.2	388.4	388.4	389.0	389.0	388.8	388.4
5°	390.4	387.4	383.8	379.7	375.3	370.9	370.1	368.6	367.4	366.6	365.6
7.5°	379.7	374.7	369.7	364.0	359.0	354.9	351.9	349.3	347.7	345.9	344.5
10°	368.7	362.2	356.1	349.9	343.2	337.8	334.4	332.1	330.3	328.7	327.9
12.5°	355.9	348.1	341.2	335.4	327.9	322.3	319.2	318.4	316.2	312.4	310.4
15°	343.4	336.4	328.3	319.4	315.8	309.0	305.3	303.5	302.3	299.7	298.9
17.5°	333.0	323.7	314.4	307.9	301.3	296.0	293.8	291.4	289.8	287.4	286.8
20°	320.2	312.0	303.7	296.5	289.6	283.7	281.9	280.3	278.7	277.7	276.9
22.5°	307.1	298.9	292.4	285.8	278.3	274.9	272.9	271.2	270.2	269.6	268.8
25°	295.0	287.8	280.1	274.1	268.2	265.6	264.4	263.4	262.6	261.6	261.4
27.5°	284.2	276.3	269.8	264.0	259.7	257.5	256.1	255.5	255.5	255.9	256.1
30°	271.9	264.8	259.7	254.9	250.9	248.9	248.7	248.7	249.5	249.7	250.1
32.5°	260.6	255.1	249.9	245.4	242.6	241.4	242.4	242.4	243.0	243.6	244.4
35°	249.7	244.6	240.6	236.6	234.1	234.7	235.1	235.5	236.4	237.6	238.4
37.5°	239.4	234.7	230.5	227.3	225.7	226.9	227.9	228.7	229.9	230.9	231.7
40°	228.1	224.7	220.8	218.0	218.4	219.0	219.8	220.8	221.8	222.4	223.2
42.5°	217.6	214.0	211.3	209.1	209.7	210.5	210.9	211.3	212.4	213.6	214.0
45°	206.9	204.1	201.3	199.9	200.3	200.7	201.1	201.7	202.7	203.5	203.7
47.5°	194.8	192.8	191.0	189.4	190.2	190.0	190.6	191.8	192.2	192.6	193.8
50°	183.3	181.5	179.3	178.9	178.9	178.9	179.1	180.7	180.7	181.5	182.3
52.5°	170.6	169.6	168.4	167.6	167.2	167.2	168.2	168.8	169.2	170.4	171.2
55°	158.1	156.9	155.7	155.1	154.7	155.1	156.7	157.1	158.1	158.7	159.3
57.5°	145.0	144.2	143.2	142.8	142.8	143.0	144.2	145.2	145.4	147.4	148.2
60°	132.1	130.7	129.9	129.9	129.5	131.3	130.9	132.9	133.3	134.5	135.9
62.5°	118.8	116.8	116.6	116.6	117.4	117.6	118.4	119.0	120.2	121.8	122.8
65°	104.3	103.3	104.7	104.5	104.1	105.3	105.3	106.3	107.5	108.9	111.1
67.5°	90.8	90.1	90.5	90.3	90.8	91.6	92.2	93.0	94.4	96.0	97.4
70°	77.2	77.8	76.8	77.6	78.2	78.4	78.7	79.9	81.5	82.5	84.1
72.5°	63.9	63.7	64.1	64.3	64.9	65.3	65.7	67.0	68.8	69.6	70.8
75°	51.2	51.0	51.6	51.6	52.6	53.0	53.4	54.0	55.5	56.7	57.7
77.5°	39.7	39.9	39.7	40.5	40.1	40.3	41.5	42.1	42.3	44.8	45.2
80°	28.2	28.6	28.8	29.0	29.2	28.8	30.2	30.7	30.7	32.1	33.1
82.5°	18.2	18.4	19.0	19.2	19.2	19.8	19.6	20.0	20.6	21.0	22.4
85°	10.1	10.7	10.9	10.7	10.9	10.5	11.1	11.3	11.5	11.5	11.5
87.5°	4.0	4.2	4.0	4.2	4.0	4.2	4.2	3.8	3.8	4.4	3.6
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):**

	165°	170°	175°	180°
0°	409.4	409.4	409.4	409.4
2.5°	387.0	386.8	388.2	387.2
5°	364.4	365.0	363.0	363.0
7.5°	344.0	343.2	343.4	342.0
10°	325.5	324.3	323.9	324.1
12.5°	310.2	310.2	307.1	307.1
15°	298.9	295.2	294.8	296.0
17.5°	286.4	284.2	284.4	284.0
20°	276.9	275.7	275.5	274.1
22.5°	268.2	268.0	268.2	266.6
25°	261.2	262.2	261.4	261.4
27.5°	256.5	256.5	255.9	255.9
30°	250.9	250.7	251.1	251.1
32.5°	245.4	245.8	245.8	246.0
35°	239.6	239.8	240.4	240.0
37.5°	232.1	233.1	232.9	233.3
40°	223.4	223.9	223.7	223.7
42.5°	214.4	214.8	214.2	213.8
45°	204.5	204.1	204.7	203.9
47.5°	193.6	193.8	194.0	194.8
50°	182.7	183.9	183.9	183.7
52.5°	172.0	172.4	173.4	173.4
55°	160.9	161.3	161.7	161.9
57.5°	149.6	149.4	150.2	150.4
60°	137.5	137.5	139.0	139.6
62.5°	124.6	125.4	126.9	125.8
65°	112.1	113.7	113.5	114.3
67.5°	99.0	100.0	101.6	101.6
70°	85.7	86.7	87.5	88.1
72.5°	72.8	73.2	75.4	74.2
75°	59.1	60.5	61.7	61.1
77.5°	46.0	47.8	48.2	47.6
80°	34.5	34.3	35.5	35.3
82.5°	23.0	22.8	23.2	23.4
85°	12.3	12.9	12.1	11.9
87.5°	3.6	3.6	3.4	3.2
90°	0.0	0.0	0.0	0.0

(END OF REPORT)