

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: McGRAW-EDISON

Report Number: P152356

Luminaire Tested: **TLM-F01-LED-E1-SL4-7050**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-41-14  
Report Number: P152356  
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (P33680)  
Test Lab: INNOVATION CENTER-P3  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: MCGRAW-EDISON  
Catalog Number: TLM-F01-LED-E1-SL4-7050  
Description: TALON MEDIUM LED SITE LUMINAIRE  
(1) LIGHTBARS WITH AccuLED OPTICS - TYPE 4 W/ SPILL LIGHT CONTROL  
Light Source: (7) 5000K CCT, 70 CRI LEDs  
Ballast/Driver: -

**Summary**

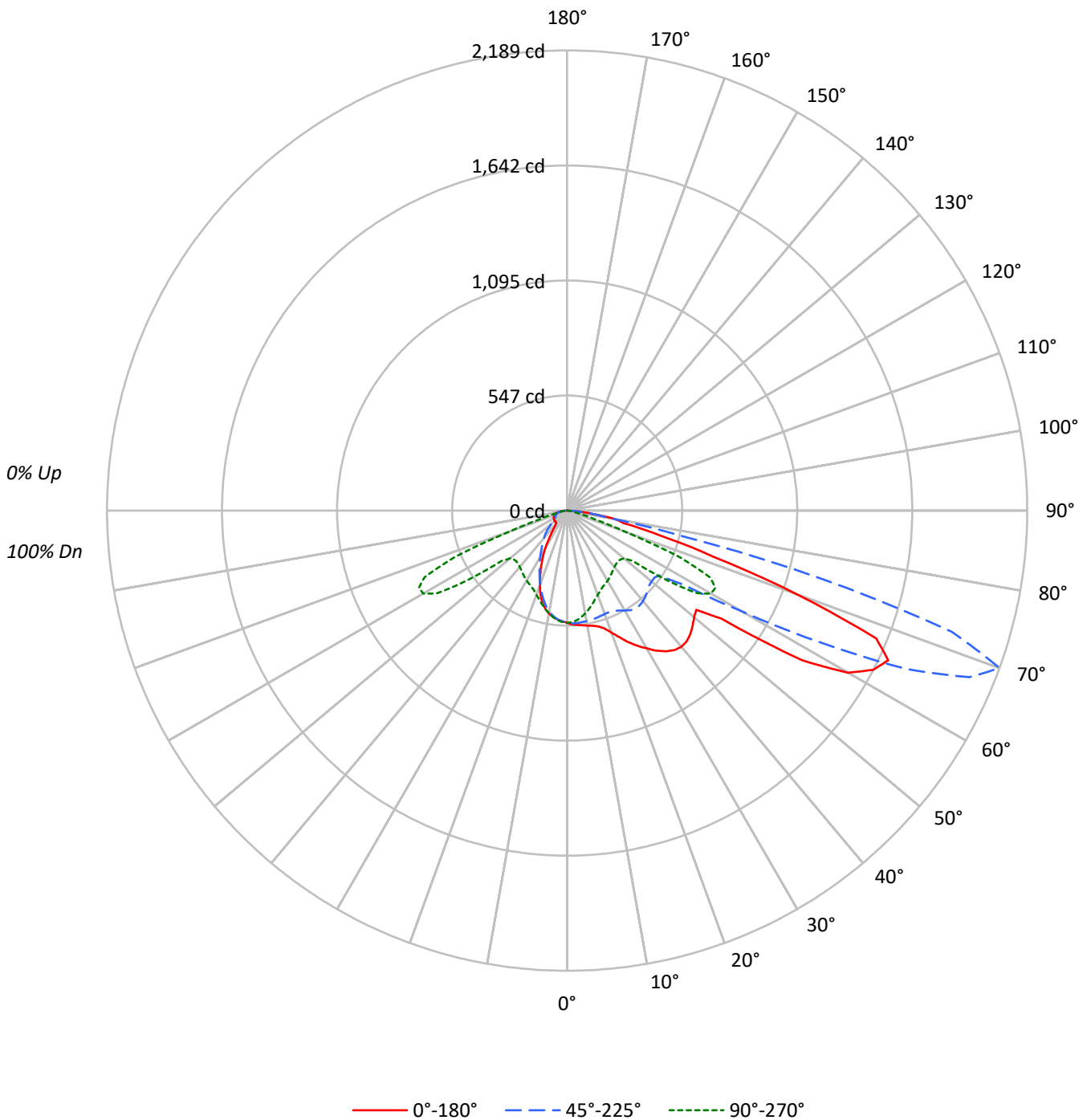
Lumens per Lamp: N/A  
Luminaire Lumens: 2502.4 lumens  
Efficiency: N/A  
Efficacy: 96.6 lumens/watt  
Spacing Criteria (0/90/45): 1.36 / 1.07 / 1.36  
Luminous Opening: Rectangular (W 0.17' x L: 1' x H: 0')  
CIE Type: Direct

Input Watts (W): 25.9  
Input Voltage (V): NR  
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	106	100	94	89	103	97	92	88	93	89	85	89	86	82	85	82	80	78					78			
2	93	83	74	67	90	81	73	66	77	70	64	73	68	63	70	66	61	59					59			
3	83	70	59	51	80	68	58	51	65	57	50	62	55	49	59	53	48	45					45			
4	74	60	49	41	72	58	48	40	55	47	40	53	45	39	51	44	39	36					36			
5	67	52	41	33	65	51	41	33	48	40	33	46	38	32	44	37	32	29					29			
6	61	46	36	28	59	45	35	28	43	34	28	41	33	27	39	32	27	25					25			
7	57	41	31	24	55	40	31	24	39	30	24	37	29	23	36	29	23	21					21			
8	53	37	28	21	51	36	27	21	35	27	21	34	26	21	32	26	20	18					18			
9	49	34	25	19	47	33	25	19	32	24	18	31	24	18	30	23	18	16					16			
10	46	31	23	17	44	31	22	17	30	22	17	29	21	16	28	21	16	14					14			

**AVERAGE LUMINANCE (cd/sqm):**

	0°	90°	180°
0°	33805	33805	33805
5°	34710	33292	33076
10°	35728	31916	31967
15°	37403	30225	29780
20°	41628	28691	25510
25°	48268	27973	20400
30°	55324	28141	15237
35°	63159	28352	9909
40°	69901	28937	6836
45°	74259	30570	6823
50°	77651	34742	7595
55°	98810	63585	8290
60°	195333	100016	9295
65°	252509	112111	10443
70°	214840	53002	11756
75°	112950	19473	14507
80°	84011	10611	15752
85°	48602	10243	15765



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	49.9	2.0
10°-20°	136.6	5.5
20°-30°	202.1	8.1
30°-40°	255.5	10.2
40°-50°	288.9	11.5
50°-60°	411.1	16.4
60°-70°	765.7	30.6
70°-80°	350.9	14.0
80°-90°	41.7	1.7
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°	388.6	15.5
0°-40°	644.0	25.7
0°-60°	1344.1	53.7
0°-90°	2502.4	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2502.4	100.0

**CANDELA DISTRIBUTION:**

	0°	45°	90°	135°	180°	Flux
0°	534	534	534	534	534	
5°	546	537	524	520	520	52
15°	571	529	461	436	454	164
25°	691	527	400	312	292	321
35°	817	569	367	209	128	511
45°	829	540	341	137	76	638
55°	895	537	576	70	75	940
65°	1685	1785	748	62	70	1554
75°	462	1255	80	49	59	568
85°	67	59	14	22	22	84
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°	533.9	533.9	533.9	533.9	533.9	533.9	533.9	533.9	533.9	533.9	533.9
2.5°	542.1	543.5	541.8	541.6	541.6	541.3	539.6	539.3	537.0	537.3	537.9
5°	546.1	546.6	545.5	545.2	544.7	543.5	542.1	540.4	538.7	537.0	535.6
7.5°	550.0	549.5	548.6	548.6	547.8	546.1	543.3	541.0	537.3	535.4	532.8
10°	555.7	554.8	553.7	553.1	551.7	549.2	545.2	542.1	537.6	533.7	529.4
12.5°	561.0	560.8	559.1	558.2	556.0	553.4	548.6	543.8	537.9	531.7	526.0
15°	570.6	569.5	567.8	566.1	562.5	559.1	551.7	546.1	537.6	529.4	520.7
17.5°	587.3	585.3	583.6	580.0	575.4	569.5	558.8	549.2	537.6	525.8	515.9
20°	617.8	613.6	611.3	606.5	598.6	587.9	571.2	555.7	538.5	523.2	509.9
22.5°	652.2	649.4	646.3	643.2	630.8	615.3	592.7	569.5	543.5	522.1	505.1
25°	690.9	687.3	685.6	680.2	668.6	650.8	620.1	587.9	555.1	526.6	505.1
27.5°	725.4	724.2	724.0	717.8	706.7	685.8	649.4	610.7	570.9	535.9	509.4
30°	756.7	755.6	755.0	751.6	738.9	714.1	674.6	631.1	588.2	548.9	517.3
32.5°	790.0	786.4	784.7	778.2	763.8	734.7	689.5	644.3	601.7	561.6	526.0
35°	817.1	814.0	810.7	801.3	781.0	746.6	696.0	648.9	607.1	568.7	530.6
37.5°	836.9	833.8	829.0	817.1	792.0	750.5	695.7	647.4	605.1	567.5	531.4
40°	845.7	842.6	837.5	822.5	794.0	748.3	690.4	641.0	599.2	561.6	528.0
42.5°	842.3	840.0	833.5	819.1	787.8	738.1	679.6	628.8	587.9	552.0	520.4
45°	829.3	827.6	821.4	806.1	773.7	721.7	663.8	613.6	574.3	540.2	510.2
47.5°	809.8	809.2	803.0	788.1	755.9	705.3	647.4	598.6	560.8	528.6	501.8
50°	788.3	785.5	782.4	768.6	739.2	691.2	635.6	589.3	553.1	524.3	498.1
52.5°	774.8	773.9	771.1	758.7	730.5	683.0	630.2	585.9	552.6	523.5	496.1
55°	895.1	897.1	871.1	817.1	769.7	705.6	646.3	603.1	566.4	537.0	517.0
57.5°	1324.0	1315.2	1270.6	1163.6	1042.8	883.2	768.3	698.6	653.1	658.2	668.3
60°	1542.5	1540.8	1532.6	1491.1	1410.7	1289.2	1154.6	1000.1	951.0	956.3	960.3
62.5°	1640.2	1642.8	1649.0	1633.4	1612.3	1577.0	1509.8	1447.7	1381.9	1357.3	1291.5
65°	1685.4	1689.9	1704.0	1712.8	1721.0	1727.2	1753.7	1826.6	1874.6	1784.8	1575.8
67.5°	1591.9	1613.7	1660.3	1705.7	1746.4	1804.3	1894.1	2063.2	2180.9	2070.5	1767.6
70°	1160.5	1190.1	1243.5	1384.1	1534.3	1665.6	1839.6	2097.1	2274.7	2189.4	1815.0
72.5°	727.6	735.8	759.5	811.2	922.7	1091.3	1395.4	1781.7	1986.7	1918.6	1534.1
75°	461.7	464.5	463.6	475.5	494.4	531.1	651.4	1052.4	1361.0	1254.8	855.0
77.5°	275.0	279.3	280.9	284.6	293.7	306.6	316.5	358.0	570.6	554.0	310.3
80°	230.4	233.8	231.0	230.1	224.5	220.5	225.3	220.5	204.7	197.1	181.6
82.5°	122.0	121.7	120.8	129.0	145.7	158.7	168.6	166.3	150.5	128.2	108.7
85°	66.9	69.2	69.2	72.0	69.5	69.7	72.0	76.0	70.3	58.7	48.0
87.5°	5.6	8.8	7.1	8.8	11.9	8.5	8.2	8.2	7.1	5.1	4.5
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°	533.9	533.9	533.9	533.9	533.9	533.9	533.9	533.9	533.9	533.9	533.9
2.5°	536.5	535.9	534.8	533.9	533.9	532.5	531.7	531.1	530.8	529.7	529.7
5°	534.8	532.8	530.8	529.4	528.6	527.2	524.9	523.8	522.4	521.2	520.7
7.5°	531.1	527.4	524.3	522.1	519.3	517.0	514.2	511.6	509.1	508.0	507.4
10°	525.5	520.7	515.9	511.6	507.7	503.7	500.1	496.4	493.3	491.0	488.8
12.5°	520.1	512.8	506.6	500.3	494.1	489.3	484.2	478.9	474.4	470.1	469.0
15°	512.8	504.3	496.4	488.8	481.1	473.2	467.0	461.1	453.8	449.0	445.3
17.5°	506.0	495.8	486.2	477.2	467.9	459.7	450.4	442.5	435.1	427.8	422.4
20°	498.6	487.6	477.5	467.3	457.1	446.7	436.0	425.8	416.8	408.0	399.3
22.5°	492.2	480.9	471.0	460.0	448.7	436.8	424.4	411.7	401.2	389.9	379.8
25°	488.2	475.8	465.6	454.9	442.5	429.5	415.3	400.4	387.7	374.7	362.5
27.5°	488.2	472.1	461.7	450.9	438.2	424.4	408.9	392.5	378.1	363.7	348.7
30°	492.4	472.7	458.6	447.3	434.3	419.3	402.1	384.9	369.0	352.1	337.7
32.5°	496.4	473.8	456.3	441.9	426.9	412.2	394.7	376.4	358.9	342.8	327.5
35°	498.9	473.8	452.1	433.7	416.8	402.4	385.1	366.8	349.0	333.2	319.1
37.5°	499.2	471.5	445.3	424.4	406.6	391.6	375.3	358.0	341.1	326.4	314.5
40°	496.4	467.0	438.5	414.5	395.9	380.6	365.7	350.1	334.9	322.7	312.6
42.5°	491.3	462.2	432.0	406.6	387.1	371.3	357.5	344.2	330.9	320.5	312.0
45°	483.7	455.7	426.1	401.8	382.6	365.9	352.4	341.4	330.1	321.3	312.9
47.5°	476.9	453.5	428.1	404.9	384.9	367.6	353.8	344.5	335.7	329.8	318.2
50°	475.5	452.3	428.9	407.4	387.1	369.6	357.5	352.7	350.1	346.5	328.7
52.5°	471.5	452.1	435.1	423.3	410.3	402.1	389.4	393.9	391.1	378.1	345.9
55°	513.0	518.7	534.5	557.1	578.0	582.8	581.4	576.0	547.5	471.0	387.4
57.5°	705.3	737.2	767.2	780.4	778.7	763.8	753.1	731.3	690.1	596.9	469.3
60°	972.4	977.5	961.7	938.3	898.7	865.7	830.4	789.8	729.9	638.7	519.5
62.5°	1218.4	1150.0	1079.7	1013.7	953.5	901.0	851.9	795.1	717.2	622.0	513.0
65°	1392.0	1247.5	1136.5	1041.6	956.6	883.2	821.9	748.3	660.4	574.6	475.5
67.5°	1481.5	1259.9	1089.6	957.5	836.9	735.3	653.7	581.9	516.7	479.2	416.2
70°	1381.6	1069.3	832.1	682.7	538.5	431.7	341.1	286.3	267.4	303.0	315.1
72.5°	1029.5	696.0	495.0	382.9	293.4	233.8	179.3	140.9	114.6	120.3	156.1
75°	486.8	300.4	212.3	161.5	128.5	106.4	87.0	79.6	66.6	55.3	52.0
77.5°	189.5	138.1	114.1	83.6	59.3	47.7	40.7	39.2	40.1	39.0	38.4
80°	144.3	97.7	61.3	44.9	38.7	34.2	30.2	29.1	29.6	31.1	32.5
82.5°	80.5	50.3	37.3	32.5	29.1	24.8	22.6	20.9	21.2	22.9	26.0
85°	31.1	24.3	22.3	21.5	20.0	16.1	13.8	14.1	16.1	19.2	19.2
87.5°	3.4	3.4	4.5	3.4	3.4	3.4	3.1	3.7	4.0	5.1	5.9
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):**

	110°	115°	120°	125°	130°	135°	140°	145°	150°	155°	160°
0°	533.9	533.9	533.9	533.9	533.9	533.9	533.9	533.9	533.9	533.9	533.9
2.5°	529.1	529.1	529.1	528.6	528.9	527.7	527.7	526.9	528.3	527.4	527.2
5°	521.0	520.7	519.5	519.5	519.5	519.5	520.4	518.1	519.8	519.8	519.0
7.5°	507.1	507.1	504.0	505.7	505.1	506.0	507.1	506.0	507.7	508.8	508.0
10°	487.9	487.9	485.4	487.4	486.5	488.5	490.5	489.3	490.5	492.2	492.7
12.5°	466.7	465.6	463.4	464.2	464.2	465.3	466.2	467.6	469.0	471.3	472.4
15°	442.2	440.5	437.7	437.7	436.0	436.5	438.2	438.8	441.6	444.7	448.4
17.5°	417.0	412.8	409.7	406.0	403.2	405.5	407.4	408.9	411.1	415.9	418.5
20°	393.3	384.9	378.9	374.1	371.0	372.4	375.0	376.7	378.6	379.8	380.6
22.5°	369.9	360.3	352.1	346.2	341.1	342.5	341.4	340.5	341.9	338.3	338.0
25°	349.6	338.3	327.3	320.2	314.0	312.0	306.1	304.7	300.7	297.6	295.3
27.5°	334.9	320.2	308.1	299.9	290.0	282.6	275.0	267.4	263.2	258.1	255.5
30°	323.3	307.8	293.4	279.5	266.5	255.3	245.1	235.2	228.4	221.1	216.3
32.5°	312.6	298.2	280.7	261.7	244.2	231.5	218.3	207.0	196.2	186.6	179.6
35°	305.2	289.1	266.8	243.7	223.9	208.9	194.8	178.7	165.7	153.3	145.7
37.5°	301.3	281.5	254.1	228.4	206.4	189.5	172.0	153.3	137.5	125.9	114.4
40°	298.2	273.9	242.8	214.9	191.7	171.4	151.1	129.0	111.5	99.4	90.4
42.5°	294.8	265.4	232.9	204.1	178.5	154.7	130.2	106.7	90.1	81.6	77.6
45°	291.1	258.1	223.6	194.0	165.5	136.7	108.4	86.7	76.8	74.0	74.0
47.5°	290.3	253.3	216.9	184.1	150.8	115.8	88.4	74.8	72.0	72.6	73.7
50°	293.7	251.9	210.9	172.5	131.3	93.7	74.8	70.3	70.9	72.6	74.3
52.5°	301.8	253.0	204.7	156.4	108.1	77.4	69.2	68.9	70.6	73.1	74.8
55°	315.7	253.0	192.9	132.4	86.4	69.5	67.2	68.3	70.6	72.8	74.3
57.5°	345.3	250.5	172.0	105.9	72.3	66.6	66.6	68.0	70.0	72.3	73.4
60°	380.6	247.1	142.6	81.9	65.2	64.4	66.4	68.0	69.7	71.7	72.8
62.5°	382.9	238.3	112.9	67.8	61.6	63.0	66.1	68.3	68.9	70.3	71.7
65°	351.8	207.8	89.8	60.7	59.9	62.1	65.2	66.9	67.2	67.8	69.2
67.5°	308.1	169.4	72.6	57.3	58.2	60.7	62.4	63.8	64.7	66.1	66.4
70°	253.0	136.1	62.1	53.9	54.8	57.6	59.0	60.4	62.1	63.8	63.0
72.5°	179.3	105.9	54.5	50.3	51.4	53.9	55.6	56.8	58.2	59.9	58.7
75°	76.2	74.0	47.2	45.5	47.2	48.8	50.5	52.2	53.6	54.5	54.5
77.5°	39.0	43.5	40.7	40.7	41.8	43.5	44.9	46.6	47.4	48.3	49.4
80°	33.0	33.6	34.2	35.3	36.4	38.1	39.5	40.9	41.2	41.5	42.1
82.5°	27.4	28.5	29.1	30.8	31.6	32.2	33.0	33.0	33.6	33.6	32.8
85°	19.8	21.2	22.0	22.3	22.0	22.3	22.6	23.2	24.6	24.6	23.4
87.5°	5.6	5.4	6.8	7.1	7.6	8.8	9.9	11.9	12.4	13.0	13.0
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):**

	165°	170°	175°	180°
0°	533.9	533.9	533.9	533.9
2.5°	526.9	527.4	526.3	526.6
5°	519.0	520.1	518.7	520.4
7.5°	508.8	510.5	510.2	509.9
10°	494.1	496.4	496.4	497.2
12.5°	475.5	476.9	478.0	478.6
15°	450.4	452.9	454.3	454.3
17.5°	420.1	421.8	422.7	421.6
20°	381.7	381.2	381.5	378.6
22.5°	337.4	338.3	335.7	336.3
25°	293.9	292.5	293.7	292.0
27.5°	251.9	252.1	249.0	250.5
30°	211.8	210.4	206.4	208.4
32.5°	173.1	169.4	165.2	162.6
35°	136.7	131.0	129.0	128.2
37.5°	107.3	101.1	99.1	96.8
40°	85.3	83.0	82.2	82.7
42.5°	76.5	76.5	77.1	77.4
45°	74.3	75.1	76.0	76.2
47.5°	74.5	75.4	76.5	76.8
50°	75.1	76.0	76.8	77.1
52.5°	75.4	75.4	76.0	76.2
55°	74.8	74.5	74.8	75.1
57.5°	73.7	73.1	73.4	74.3
60°	73.1	72.3	72.8	73.4
62.5°	71.7	71.4	72.0	72.3
65°	68.6	68.9	69.7	69.7
67.5°	65.8	66.1	66.4	66.6
70°	62.4	62.7	63.2	63.5
72.5°	58.4	59.6	60.4	61.6
75°	55.3	56.5	58.2	59.3
77.5°	50.0	50.8	52.8	54.2
80°	42.4	42.1	42.4	43.2
82.5°	32.5	32.5	32.2	31.9
85°	22.9	22.6	21.7	21.7
87.5°	12.4	12.1	11.9	11.3
90°	0.0	0.0	0.0	0.0

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