

Scaled data based on original data using
LM-66-11 Electrical and Photometric Measurements of Single-Ended Compact
Fluorescent Lamps

Test Report Prepared for
Cooper Lighting Solutions
(formerly Eaton)

Brand: SHAPER

Report Number: 25484

Luminaire Tested: **103-CFL/2/18-120V-CNK**

Issue Date: 3/3/2020

Test Information

Test Method: LM-66-11
Report Number: 25484
Test Lab: LIGHTING SCIENCES, INC.
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: SHAPER
Catalog Number: 103-CFL/2/18-120V-CNK
Description: DARK FABRIC SHADE RECTILINEAR WALL SCONCE

Light Source: TWO SYLVANIA 18 WATT CFL LAMPS

FT18DL/830/RS/ECO. LUMEN RATING = 2500 LMS.

Ballast/Driver: -

Summary

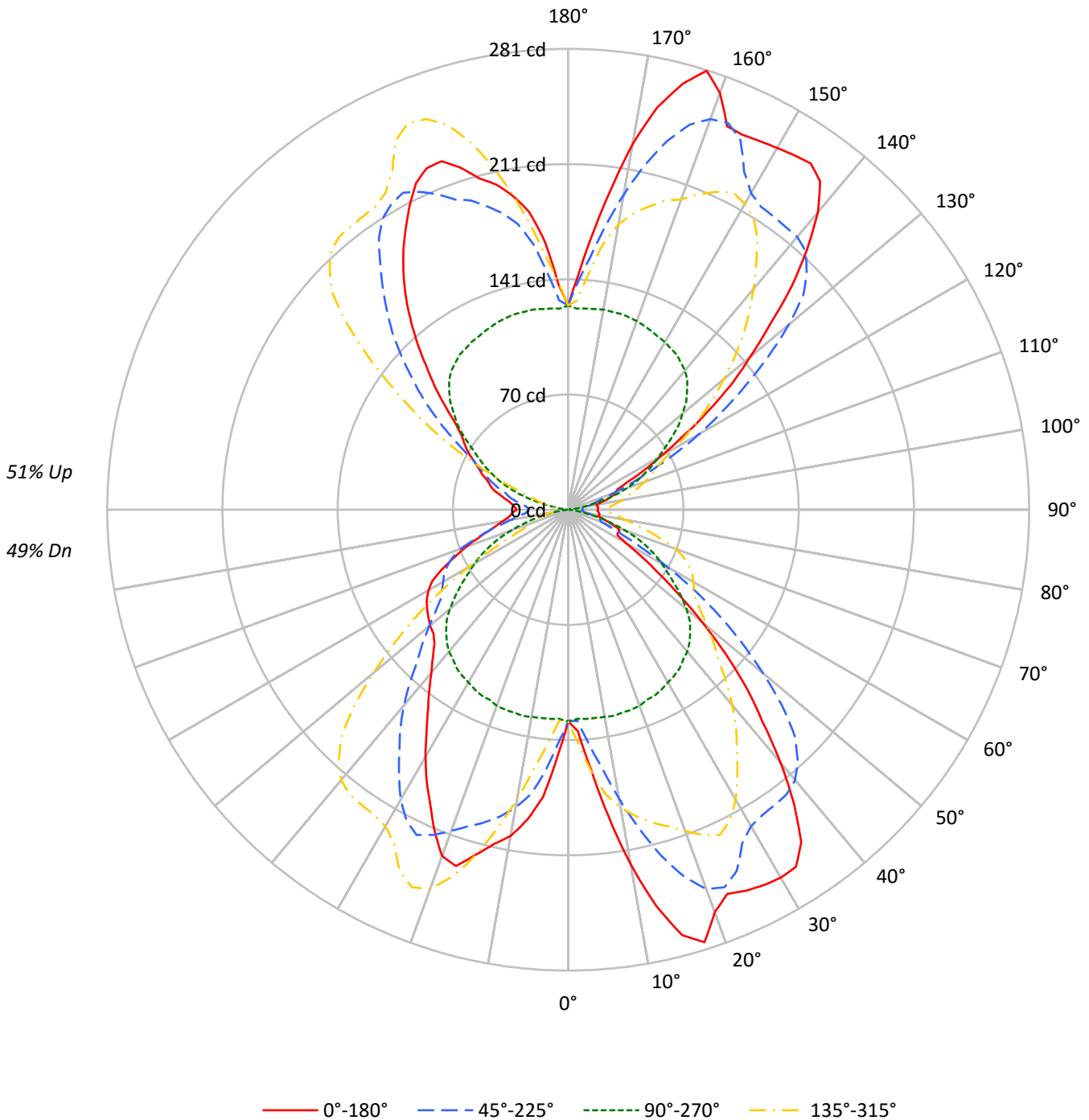
Lumens per Lamp: 2500 (1 lamp)
Luminaire Lumens: 1216.7 lumens
Efficiency: 48.7%
Efficacy: 30.4 lumens/watt
Spacing Criteria (0/90/45): 1.78 / 1.41 / 1.75
Luminous Opening: Rectangular w/ Sides (W: 0.33' x L: 2.17' x H: 0.71')
CIE Type: General Diffuse

Input Watts (W): 40
Input Voltage (V): NR
Input Current (A_{in}): 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										
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	52	52	52	52	48	48	48	48	40	40	40	33	33	33	27	27	27	24						24														
1	47	45	43	42	44	42	40	39	35	34	33	29	28	28	24	23	23	20						20														
2	43	40	37	34	40	37	34	32	31	29	27	26	24	23	21	20	19	17						17														
3	39	35	31	28	36	32	29	26	27	25	23	23	21	20	18	17	16	14						14														
4	36	31	27	24	33	28	25	22	24	22	20	20	18	17	16	15	14	12						12														
5	33	27	23	20	30	25	22	19	22	19	17	18	16	14	15	13	12	11						11														
6	30	25	21	18	28	23	19	17	19	17	15	16	14	13	13	12	11	9						9														
7	28	22	18	15	26	21	17	15	18	15	13	15	13	11	12	11	9	8						8														
8	26	20	16	14	24	19	15	13	16	13	11	14	11	10	11	10	8	7						7														
9	24	18	15	12	22	17	14	11	15	12	10	12	10	9	10	9	8	6						6														
10	23	17	13	11	21	16	12	10	13	11	9	11	9	8	10	8	7	6						6														

AVERAGE LUMINANCE (cd/sqm):

	0°	90°	180°	270°
0°	1939	1939	1939	1939
5°	2328	1625	2577	1625
10°	3170	1420	2915	1420
15°	3843	1263	3116	1263
20°	3732	1141	3212	1141
25°	3688	1035	2859	1035
30°	3783	941	2539	941
35°	3698	865	2223	865
40°	3104	790	1995	790
45°	2465	710	1845	710
50°	1790	617	1851	617
55°	1191	510	1875	510
60°	773	419	1888	419
65°	698	333	1754	333
70°	736	234	1530	234
75°	586	135	1310	135
80°	582	52	1228	52
85°	677	13	1274	13



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ZONAL LUMENS:

Zone	Lumens	% Fixture	% Lamp
0°-10°	15.1	1.2	0.6
10°-20°	56.1	4.6	2.2
20°-30°	93.9	7.7	3.8
30°-40°	115.4	9.5	4.6
40°-50°	112.7	9.3	4.5
50°-60°	90.2	7.4	3.6
60°-70°	61.7	5.1	2.5
70°-80°	34.8	2.9	1.4
80°-90°	18.7	1.5	0.7
90°-100°	18.1	1.5	0.7
100°-110°	32.2	2.6	1.3
110°-120°	60.6	5.0	2.4
120°-130°	96.4	7.9	3.9
130°-140°	122.5	10.1	4.9
140°-150°	120.8	9.9	4.8
150°-160°	95.9	7.9	3.8
160°-170°	56.5	4.6	2.3
170°-180°	15.1	1.2	0.6
0°-30°	165.1	13.6	6.6
0°-40°	280.5	23.1	11.2
0°-60°	483.4	39.7	19.3
0°-90°	598.6	49.2	23.9
90°-120°	110.9	9.1	4.4
90°-150°	450.7	37.0	18.0
90°-180°	618.0	50.8	24.7
0°-180°	1216.7	100.0	48.7

CANDELA DISTRIBUTION:

	0°	90°	180°	270°	360°	Flux
0°	129	129	129	129	129	
5°	159	128	176	128	159	17
15°	269	128	218	128	269	74
25°	256	125	199	125	256	119
35°	248	118	149	118	248	150
45°	154	105	115	105	154	118
55°	67	79	105	79	67	62
65°	33	52	84	52	33	34
75°	22	21	50	21	22	25
85°	19	2	35	2	19	15
90°	18	1	31	1	18	10
95°	18	1	34	1	18	15
105°	25	22	47	22	25	26
115°	40	51	60	51	40	43
125°	103	77	79	77	103	92
135°	193	102	121	102	193	147
145°	258	115	175	115	258	159
155°	252	120	220	120	252	118
165°	269	124	209	124	269	75
175°	168	123	164	123	168	18
180°	124	124	124	124	124	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°	202.5°	225°
0°	129.0	129.0	129.0	129.0	129.0	129.0	129.0	129.0	129.0	129.0	129.0
2.5°	135.1	132.2	128.8	126.1	127.6	134.3	142.7	147.9	150.5	147.9	142.7
5°	158.7	152.5	143.1	130.6	128.0	141.1	159.9	171.8	175.7	171.8	159.9
7.5°	188.8	179.0	159.1	138.6	128.0	149.3	175.0	186.2	190.6	186.2	175.0
10°	219.7	207.8	179.0	145.8	128.3	157.3	184.4	196.9	202.0	196.9	184.4
12.5°	247.3	233.7	198.8	152.5	128.7	163.9	191.5	205.6	208.8	205.6	191.5
15°	268.6	256.5	218.2	160.7	128.0	169.1	197.4	212.2	217.8	212.2	197.4
17.5°	276.5	269.3	234.4	168.9	127.9	172.9	202.4	221.5	227.8	221.5	202.4
20°	261.1	263.6	246.1	176.3	127.2	174.9	208.4	227.2	224.7	227.2	208.4
22.5°	253.5	248.5	249.1	182.6	125.4	177.2	214.6	219.0	212.5	219.0	214.6
25°	256.3	245.7	243.1	188.8	125.0	177.9	218.8	208.4	198.7	208.4	218.8
27.5°	258.1	247.1	229.6	192.0	123.4	179.0	213.4	195.1	186.8	195.1	213.4
30°	259.1	247.7	222.8	193.4	121.6	178.5	204.2	184.4	173.9	184.4	204.2
32.5°	258.3	248.1	220.6	191.5	120.1	177.9	192.0	172.1	160.7	172.1	192.0
35°	247.7	245.5	219.6	186.2	118.2	179.0	179.3	158.5	148.9	158.5	179.3
37.5°	226.1	234.0	218.8	179.7	115.2	178.5	168.1	145.4	139.1	145.4	168.1
40°	201.6	213.0	215.2	172.7	113.0	177.1	155.7	136.5	129.6	136.5	155.7
42.5°	175.3	188.0	207.0	164.9	109.5	172.7	142.5	126.8	122.1	126.8	142.5
45°	153.9	163.7	195.4	158.7	105.2	163.9	129.7	118.6	115.2	118.6	129.7
47.5°	130.1	142.2	176.7	154.3	100.5	153.1	120.3	111.8	111.4	111.8	120.3
50°	106.4	119.2	154.9	148.7	94.1	141.5	110.6	108.2	110.0	108.2	110.6
52.5°	84.9	96.8	133.3	141.9	86.9	128.8	102.0	105.8	107.4	105.8	102.0
55°	66.7	76.3	112.0	134.6	79.3	116.4	94.7	103.6	105.0	103.6	94.7
57.5°	52.5	60.1	90.8	125.4	72.1	103.8	91.2	101.5	102.2	101.5	91.2
60°	40.3	45.4	69.9	113.2	65.8	89.4	88.0	97.6	98.4	97.6	88.0
62.5°	33.8	35.2	51.3	98.8	59.9	78.1	85.3	93.6	93.0	93.6	85.3
65°	33.4	30.3	36.8	80.9	52.5	67.5	81.3	86.4	83.9	86.4	81.3
67.5°	33.9	30.0	27.1	61.9	45.3	59.1	76.4	76.4	74.5	76.4	76.4
70°	31.8	29.8	21.2	44.3	36.8	52.5	69.5	67.9	66.1	67.9	69.5
72.5°	27.1	26.4	20.6	27.4	28.5	48.6	59.3	58.7	57.7	58.7	59.3
75°	22.4	21.4	19.0	16.0	21.0	44.1	50.7	50.5	50.1	50.5	50.7
77.5°	18.6	17.2	14.4	10.4	13.8	37.5	41.9	44.1	44.7	44.1	41.9
80°	19.2	16.0	10.6	7.8	8.0	29.2	35.0	39.2	40.5	39.2	35.0
82.5°	19.2	16.0	9.6	5.2	3.5	21.0	30.7	35.3	37.0	35.3	30.7
85°	18.6	15.2	8.8	4.0	1.9	15.2	26.6	33.2	35.0	33.2	26.6
87.5°	17.8	15.0	9.0	3.8	1.3	11.8	24.4	31.4	33.4	31.4	24.4
90°	18.1	15.0	8.4	3.0	1.3	11.4	24.0	30.0	31.4	30.0	24.0
92.5°	18.1	15.4	8.6	2.6	0.7	12.0	24.4	30.0	32.5	30.0	24.4
95°	18.4	15.8	9.0	3.0	1.0	15.8	26.4	32.1	33.8	32.1	26.4
97.5°	17.6	15.6	8.4	5.2	3.6	19.2	29.6	33.5	36.0	33.5	29.6
100°	17.4	15.6	10.8	7.0	7.8	23.5	33.4	37.9	39.2	37.9	33.4
102.5°	20.4	17.8	14.2	12.0	14.2	29.2	37.1	41.9	42.9	41.9	37.1
105°	25.0	23.0	17.6	20.6	21.9	34.7	39.7	45.9	47.3	45.9	39.7
107.5°	28.5	26.2	21.2	33.5	30.2	41.9	45.0	48.2	49.9	48.2	45.0
110°	30.7	27.0	28.4	51.3	37.6	53.7	49.9	52.2	52.5	52.2	49.9



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CATALOG NUMBER: 103-CFL/2/18-120V-CNK

CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°	202.5°	225°
112.5°	32.5	32.9	40.1	69.7	44.7	64.9	54.3	55.7	56.9	55.7	54.3
115°	39.7	41.8	53.7	87.6	50.8	78.5	59.1	61.1	60.3	61.1	59.1
117.5°	52.3	55.5	72.1	104.6	57.2	92.5	64.9	66.1	65.1	66.1	64.9
120°	65.1	70.1	92.2	118.4	63.2	106.0	74.9	70.1	70.5	70.1	74.9
122.5°	82.2	88.0	111.4	129.3	69.4	119.4	86.2	75.5	75.0	75.5	86.2
125°	103.0	109.2	131.9	138.2	77.2	131.8	98.4	81.4	79.3	81.4	98.4
127.5°	125.0	131.0	153.9	145.5	84.9	145.5	111.4	92.6	86.7	92.6	111.4
130°	144.5	151.1	175.7	149.9	90.8	156.7	123.6	104.2	97.4	104.2	123.6
132.5°	166.3	175.0	194.6	154.9	97.5	165.7	137.3	117.0	109.4	117.0	137.3
135°	192.8	198.7	205.6	161.7	102.5	171.3	150.9	130.0	121.2	130.0	150.9
137.5°	215.6	220.8	214.0	167.5	107.4	174.9	163.1	142.2	135.0	142.2	163.1
140°	236.9	238.7	217.2	177.2	110.7	176.1	175.7	155.5	148.7	155.5	175.7
142.5°	252.3	246.5	217.5	185.2	112.9	176.7	188.0	169.3	162.3	169.3	188.0
145°	257.7	248.3	218.2	194.2	115.4	175.4	201.2	182.1	174.9	182.1	201.2
147.5°	256.3	247.1	219.0	200.2	116.4	175.8	210.4	193.4	187.0	193.4	210.4
150°	254.7	245.7	222.9	205.2	118.0	176.5	215.4	207.4	198.0	207.4	215.4
152.5°	253.3	245.5	232.3	205.6	118.8	175.7	217.9	218.4	209.2	218.4	217.9
155°	252.1	244.4	248.5	203.8	120.1	174.7	213.8	225.1	219.6	225.1	213.8
157.5°	253.1	254.5	255.1	198.7	121.3	173.9	208.2	227.3	225.4	227.3	208.2
160°	270.4	272.5	253.5	191.2	122.3	171.3	201.2	224.0	226.1	224.0	201.2
162.5°	280.6	274.4	246.1	183.3	123.1	168.5	197.8	214.0	218.8	214.0	197.8
165°	268.6	262.9	232.6	174.5	123.6	163.3	191.5	204.8	209.0	204.8	191.5
167.5°	251.3	245.5	215.0	165.9	123.6	155.7	185.2	198.7	203.2	198.7	185.2
170°	226.4	221.4	195.2	156.5	123.9	148.3	176.8	189.0	194.4	189.0	176.8
172.5°	195.8	192.8	174.5	148.5	123.4	139.0	163.3	177.2	183.3	177.2	163.3
175°	168.2	164.9	154.5	140.8	123.1	132.8	144.7	157.9	164.3	157.9	144.7
177.5°	143.3	142.2	139.1	132.8	122.7	124.8	127.8	133.2	137.7	133.2	127.8
180°	124.5	124.5	124.5	124.5	124.5	124.5	124.5	124.5	124.5	124.5	124.5



TEST NUMBER: 25484

CATALOG NUMBER: 103-CFL/2/18-120V-CNK

CANDELA DISTRIBUTION (continued):

	247.5°	270°	292.5°	315°	337.5°	360°
0°	129.0	129.0	129.0	129.0	129.0	129.0
2.5°	134.3	127.6	126.1	128.8	132.2	135.1
5°	141.1	128.0	130.6	143.1	152.5	158.7
7.5°	149.3	128.0	138.6	159.1	179.0	188.8
10°	157.3	128.3	145.8	179.0	207.8	219.7
12.5°	163.9	128.7	152.5	198.8	233.7	247.3
15°	169.1	128.0	160.7	218.2	256.5	268.6
17.5°	172.9	127.9	168.9	234.4	269.3	276.5
20°	174.9	127.2	176.3	246.1	263.6	261.1
22.5°	177.2	125.4	182.6	249.1	248.5	253.5
25°	177.9	125.0	188.8	243.1	245.7	256.3
27.5°	179.0	123.4	192.0	229.6	247.1	258.1
30°	178.5	121.6	193.4	222.8	247.7	259.1
32.5°	177.9	120.1	191.5	220.6	248.1	258.3
35°	179.0	118.2	186.2	219.6	245.5	247.7
37.5°	178.5	115.2	179.7	218.8	234.0	226.1
40°	177.1	113.0	172.7	215.2	213.0	201.6
42.5°	172.7	109.5	164.9	207.0	188.0	175.3
45°	163.9	105.2	158.7	195.4	163.7	153.9
47.5°	153.1	100.5	154.3	176.7	142.2	130.1
50°	141.5	94.1	148.7	154.9	119.2	106.4
52.5°	128.8	86.9	141.9	133.3	96.8	84.9
55°	116.4	79.3	134.6	112.0	76.3	66.7
57.5°	103.8	72.1	125.4	90.8	60.1	52.5
60°	89.4	65.8	113.2	69.9	45.4	40.3
62.5°	78.1	59.9	98.8	51.3	35.2	33.8
65°	67.5	52.5	80.9	36.8	30.3	33.4
67.5°	59.1	45.3	61.9	27.1	30.0	33.9
70°	52.5	36.8	44.3	21.2	29.8	31.8
72.5°	48.6	28.5	27.4	20.6	26.4	27.1
75°	44.1	21.0	16.0	19.0	21.4	22.4
77.5°	37.5	13.8	10.4	14.4	17.2	18.6
80°	29.2	8.0	7.8	10.6	16.0	19.2
82.5°	21.0	3.5	5.2	9.6	16.0	19.2
85°	15.2	1.9	4.0	8.8	15.2	18.6
87.5°	11.8	1.3	3.8	9.0	15.0	17.8
90°	11.4	1.3	3.0	8.4	15.0	18.1
92.5°	12.0	0.7	2.6	8.6	15.4	18.1
95°	15.8	1.0	3.0	9.0	15.8	18.4
97.5°	19.2	3.6	5.2	8.4	15.6	17.6
100°	23.5	7.8	7.0	10.8	15.6	17.4
102.5°	29.2	14.2	12.0	14.2	17.8	20.4
105°	34.7	21.9	20.6	17.6	23.0	25.0
107.5°	41.9	30.2	33.5	21.2	26.2	28.5
110°	53.7	37.6	51.3	28.4	27.0	30.7



TEST NUMBER: 25484

CATALOG NUMBER: 103-CFL/2/18-120V-CNK

CANDELA DISTRIBUTION (continued):

	247.5°	270°	292.5°	315°	337.5°	360°
112.5°	64.9	44.7	69.7	40.1	32.9	32.5
115°	78.5	50.8	87.6	53.7	41.8	39.7
117.5°	92.5	57.2	104.6	72.1	55.5	52.3
120°	106.0	63.2	118.4	92.2	70.1	65.1
122.5°	119.4	69.4	129.3	111.4	88.0	82.2
125°	131.8	77.2	138.2	131.9	109.2	103.0
127.5°	145.5	84.9	145.5	153.9	131.0	125.0
130°	156.7	90.8	149.9	175.7	151.1	144.5
132.5°	165.7	97.5	154.9	194.6	175.0	166.3
135°	171.3	102.5	161.7	205.6	198.7	192.8
137.5°	174.9	107.4	167.5	214.0	220.8	215.6
140°	176.1	110.7	177.2	217.2	238.7	236.9
142.5°	176.7	112.9	185.2	217.5	246.5	252.3
145°	175.4	115.4	194.2	218.2	248.3	257.7
147.5°	175.8	116.4	200.2	219.0	247.1	256.3
150°	176.5	118.0	205.2	222.9	245.7	254.7
152.5°	175.7	118.8	205.6	232.3	245.5	253.3
155°	174.7	120.1	203.8	248.5	244.4	252.1
157.5°	173.9	121.3	198.7	255.1	254.5	253.1
160°	171.3	122.3	191.2	253.5	272.5	270.4
162.5°	168.5	123.1	183.3	246.1	274.4	280.6
165°	163.3	123.6	174.5	232.6	262.9	268.6
167.5°	155.7	123.6	165.9	215.0	245.5	251.3
170°	148.3	123.9	156.5	195.2	221.4	226.4
172.5°	139.0	123.4	148.5	174.5	192.8	195.8
175°	132.8	123.1	140.8	154.5	164.9	168.2
177.5°	124.8	122.7	132.8	139.1	142.2	143.3
180°	124.5	124.5	124.5	124.5	124.5	124.5

(END OF REPORT)