

Scaled data based on original data using  
LM-79-2019 Approved Method: Electrical and Photometric Measurements of Solid-  
State Lighting Products

Test Report Prepared for  
Cooper Lighting Solutions

Brand: CORELITE

Report Number: P621606

Luminaire Tested: VLT-FA-050U-050D-940-UNV-STD-W-4

Issue Date: 9/2/2020

**Test Information**

Test Method: LM-79-2019  
Report Number: P621606  
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2203-563-26, G2-2203-563-21)  
Test Lab: INNOVATION CENTER  
Issue Date: 9/2/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: CORELITE  
Catalog Number: VLT-FA-050U-050D-940-UNV-STD-W-4  
Description: CORELITE VAULT SUSPENDED LED LUMINAIRE  
LIGHT SHAPING LENS - ASYMMETRIC  
DOWNLIGHT 500 LUMENS PER FOOT  
UPLIGHT 500 LUMENS PER FOOT  
Light Source: 4000K CCT, 90 CRI LEDS  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

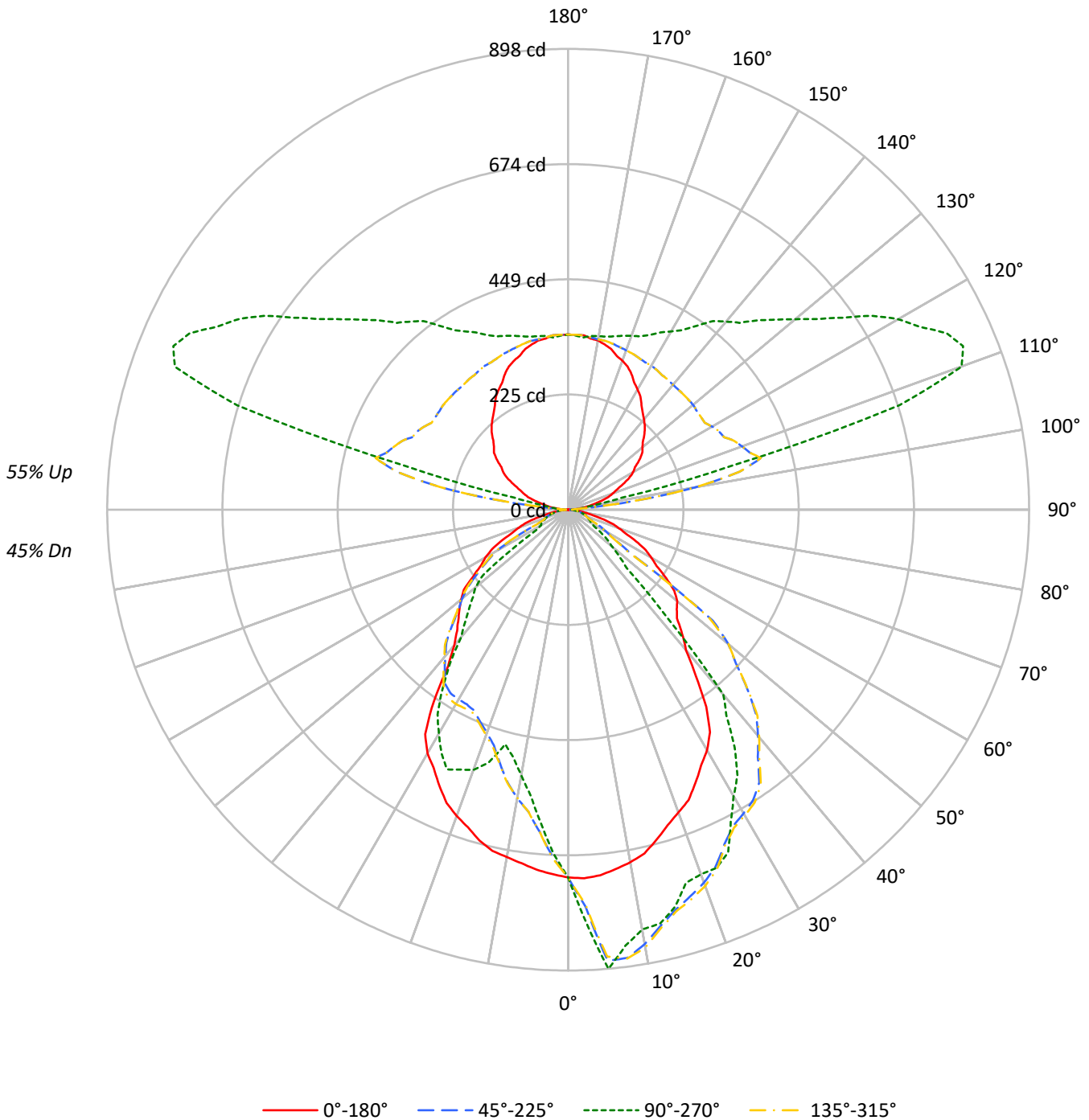
Lumens per Lamp: N/A  
Luminaire Lumens: 3311.2 lumens  
Efficiency: N/A  
Efficacy: 114.2 lumens/watt  
Spacing Criteria (0/90/45): 1.14 / 1.19 / 1.3  
Luminous Opening: Rectangular (W 0.38' x L: 4' x H: 0')  
CIE Type: General Diffuse

Input Watts (W): 29  
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: 24 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	0	
RCR																						
0	106	106	106	106	97	97	97	97	80	80	80	65	65	65	51	51	51	45				
1	97	93	90	87	89	86	83	80	72	69	67	58	57	56	46	46	45	39				
2	89	82	77	72	82	76	71	67	64	60	57	52	50	48	42	40	39	34				
3	82	73	66	61	75	67	61	57	57	52	49	47	44	41	38	36	34	30				
4	75	65	58	52	69	60	54	49	51	46	42	42	39	36	34	32	30	26				
5	69	58	51	45	63	54	47	42	46	41	37	38	34	31	31	28	26	23				
6	64	52	45	39	59	49	42	37	41	36	32	35	31	28	28	26	23	21				
7	59	47	40	35	54	44	37	33	38	32	29	32	28	25	26	23	21	18				
8	55	43	36	31	51	40	34	29	34	29	26	29	25	22	24	21	19	17				
9	51	40	32	27	47	37	30	26	32	27	23	27	23	20	22	19	17	15				
10	48	36	29	25	44	34	28	23	29	24	21	25	21	18	21	18	16	14				

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

	0°	90°	180°	270°
0°	5142	5142	5142	5142
5°	5151	6469	5073	4411
10°	5083	6050	5009	3830
15°	4944	5957	4960	3515
20°	4793	5772	4848	4119
25°	4646	5835	4698	4421
30°	4482	5340	4542	4174
35°	4106	4949	4004	3742
40°	3346	4405	3230	3045
45°	3040	1635	3070	2775
50°	3092	1245	3035	2637
55°	2919	967	2817	1578
60°	2688	743	2668	878
65°	2476	767	2426	929
70°	2203	810	2142	963
75°	1880	848	1799	990
80°	1417	872	1327	1025
85°	963	782	840	963

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 22.5°  
 Vertical Angle: 45°  
 Luminance: 5630 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	69.1	2.1
10°-20°	189.4	5.7
20°-30°	283.3	8.6
30°-40°	322.2	9.7
40°-50°	275.6	8.3
50°-60°	185.8	5.6
60°-70°	95.9	2.9
70°-80°	43.3	1.3
80°-90°	13.7	0.4
90°-100°	41.9	1.3
100°-110°	298.9	9.0
110°-120°	405.8	12.3
120°-130°	330.3	10.0
130°-140°	265.7	8.0
140°-150°	209.4	6.3
150°-160°	153.1	4.6
160°-170°	95.1	2.9
170°-180°	32.4	1.0
0°-30°	541.8	16.4
0°-40°	864.1	26.1
0°-60°	1325.5	40.0
0°-90°	1478.4	44.6
90°-120°	746.7	22.6
90°-150°	1552.1	46.9
90°-180°	1833.0	55.4
0°-180°	3311.2	100.0

**CANDELA DISTRIBUTION:**

	0°	90°	180°	270°	360°	Flux
0°	717	717	717	717	717	
5°	715	898	704	612	715	68
15°	666	802	668	473	666	187
25°	587	737	593	558	587	270
35°	469	565	457	427	469	287
45°	300	161	302	273	300	238
55°	233	77	225	126	233	208
65°	146	45	143	55	146	144
75°	68	31	65	36	68	72
85°	12	10	10	12	12	15
90°	0	6	0	6	0	1
95°	17	24	17	24	17	19
105°	66	328	66	328	66	70
115°	118	813	118	813	118	117
125°	170	652	170	652	170	151
135°	210	522	210	522	210	162
145°	249	438	249	438	249	156
155°	292	376	292	376	292	134
165°	324	350	324	350	324	91
175°	341	337	341	337	341	32
180°	341	341	341	341	341	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°	202.5°	225°
0°	716.6	716.6	716.6	716.6	716.6	716.6	716.6	716.6	716.6	716.6	716.6
2.5°	718.9	743.4	774.3	795.5	804.6	795.5	769.1	743.2	710.7	701.0	678.1
5°	715.1	790.7	882.0	893.1	898.1	893.1	874.0	786.1	704.2	669.3	631.3
7.5°	706.4	838.5	881.0	856.4	856.5	861.1	882.3	834.4	695.0	640.1	593.5
10°	697.6	865.1	859.4	823.9	830.3	827.4	866.0	859.9	687.4	624.0	570.8
12.5°	686.0	873.4	830.9	819.2	826.2	822.2	835.1	868.9	681.0	612.4	544.5
15°	665.5	861.6	807.0	801.9	801.9	805.4	810.6	865.2	667.7	591.5	512.5
17.5°	644.5	837.8	790.3	765.1	762.3	767.1	796.3	843.9	648.9	568.2	481.4
20°	627.6	821.5	773.4	743.8	755.9	745.2	780.0	825.9	634.9	553.7	462.2
22.5°	612.5	801.2	751.9	739.2	755.4	739.5	757.8	805.6	618.6	537.3	447.6
25°	586.8	767.1	719.5	731.3	737.0	731.3	722.4	770.1	593.4	516.4	432.3
27.5°	561.3	731.2	695.3	703.2	685.8	699.2	699.2	731.4	567.4	492.0	427.6
30°	540.9	706.3	683.0	671.5	644.4	665.8	688.1	706.4	548.2	476.2	426.4
32.5°	514.1	683.4	670.8	630.9	613.5	628.0	676.5	682.9	518.4	461.8	425.3
35°	468.7	651.2	648.8	582.8	564.9	578.5	653.9	649.5	457.1	439.2	416.2
37.5°	407.9	622.5	606.6	534.1	505.8	530.6	611.5	619.4	384.5	418.5	395.1
40°	357.2	603.1	575.2	498.0	470.2	494.4	578.8	601.4	344.8	404.0	371.8
42.5°	328.6	585.9	541.9	459.7	287.6	453.9	545.6	583.7	320.3	385.2	351.4
45°	299.6	554.8	493.5	254.5	161.1	242.4	494.2	547.0	302.5	356.7	320.0
47.5°	286.9	516.4	442.9	153.3	136.0	148.9	442.5	508.0	287.1	328.1	290.1
50°	277.0	492.3	406.8	135.1	111.5	130.1	407.5	484.3	271.9	309.0	269.7
52.5°	260.7	463.4	354.9	111.9	96.4	109.2	346.3	454.3	256.2	288.1	244.1
55°	233.3	407.9	148.0	88.0	77.3	84.4	140.7	394.2	225.2	255.2	214.3
57.5°	204.3	347.2	103.8	68.5	59.9	67.8	103.1	333.3	200.5	216.1	186.9
60°	187.3	306.4	84.6	57.5	51.8	56.7	83.8	294.2	185.9	190.2	161.8
62.5°	170.4	264.9	70.0	50.6	48.8	49.8	69.8	251.6	167.8	168.1	114.0
65°	145.8	200.7	51.8	45.9	45.2	45.2	50.3	193.5	142.9	138.6	65.6
67.5°	120.7	144.1	41.6	42.3	41.6	41.6	40.8	140.0	117.8	110.5	49.6
70°	105.0	110.7	38.6	39.3	38.6	38.6	37.9	107.8	102.1	85.7	46.7
72.5°	89.8	75.6	35.7	35.9	35.7	35.7	35.0	70.9	86.9	60.2	42.6
75°	67.8	37.9	30.6	30.6	30.6	30.6	29.9	36.4	64.9	39.2	36.4
77.5°	47.1	25.0	25.4	25.2	25.2	24.7	24.6	24.8	44.3	27.1	29.5
80°	34.3	20.7	21.9	21.1	21.1	21.1	21.1	20.0	32.1	22.8	24.8
82.5°	24.3	16.5	17.8	17.1	17.1	17.1	17.1	16.3	22.2	18.6	20.1
85°	11.7	11.0	11.7	10.2	9.5	10.2	10.9	10.9	10.2	12.3	13.1
87.5°	3.5	5.6	5.5	4.8	4.8	4.8	4.9	5.0	2.9	6.2	6.1
90°	0.0	2.1	4.3	6.4	6.4	6.4	4.3	2.1	0.0	2.1	4.3
92.5°	5.2	7.2	9.4	13.3	15.0	13.3	9.4	7.2	5.2	7.2	9.4
95°	17.2	31.9	17.2	19.4	23.6	19.4	17.2	31.9	17.2	31.9	17.2
97.5°	30.5	61.1	126.2	37.2	32.2	37.2	126.2	61.1	30.5	61.1	126.2
100°	40.8	76.4	253.2	74.5	49.4	74.5	253.2	76.4	40.8	76.4	253.2
102.5°	51.1	88.4	342.5	196.7	107.7	196.7	342.5	88.4	51.1	88.4	342.5
105°	66.5	102.2	388.4	496.2	328.3	496.2	388.4	102.2	66.5	102.2	388.4
107.5°	82.0	108.8	370.8	722.1	676.4	722.1	370.8	108.8	82.0	108.8	370.8
110°	92.3	117.5	360.5	758.8	815.4	758.8	360.5	117.5	92.3	117.5	360.5



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**CANDELA DISTRIBUTION (continued):**

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°	202.5°	225°
112.5°	102.6	127.8	350.2	737.4	832.6	737.4	350.2	127.8	102.6	127.8	350.2
115°	118.0	143.2	334.8	695.8	813.3	695.8	334.8	143.2	118.0	143.2	334.8
117.5°	133.9	158.7	330.9	650.8	771.7	650.8	330.9	158.7	133.9	158.7	330.9
120°	145.9	169.0	324.0	616.6	742.5	616.6	324.0	169.0	145.9	169.0	324.0
122.5°	154.5	179.3	315.4	587.2	703.0	587.2	315.4	179.3	154.5	179.3	315.4
125°	169.5	192.6	315.4	551.6	652.4	551.6	315.4	192.6	169.5	192.6	315.4
127.5°	182.0	205.5	315.9	510.4	609.9	510.4	315.9	205.5	182.0	205.5	315.9
130°	188.8	214.0	317.6	482.8	577.2	482.8	317.6	214.0	188.8	214.0	317.6
132.5°	197.4	222.6	317.6	470.4	548.1	470.4	317.6	222.6	197.4	222.6	317.6
135°	210.3	233.4	317.6	454.3	521.5	454.3	317.6	233.4	210.3	233.4	317.6
137.5°	221.0	245.8	317.6	436.5	494.0	436.5	317.6	245.8	221.0	245.8	317.6
140°	229.6	252.7	317.6	426.1	478.5	426.1	317.6	252.7	229.6	252.7	317.6
142.5°	238.2	259.6	319.3	414.0	463.1	414.0	319.3	259.6	238.2	259.6	319.3
145°	248.9	269.9	319.7	395.8	437.8	395.8	319.7	269.9	248.9	269.9	319.7
147.5°	261.8	280.3	322.3	382.7	415.0	382.7	322.3	280.3	261.8	280.3	322.3
150°	270.4	287.2	324.0	374.0	401.3	374.0	324.0	287.2	270.4	287.2	324.0
152.5°	279.0	294.1	324.0	367.0	389.3	367.0	324.0	294.1	279.0	294.1	324.0
155°	291.8	302.3	326.2	358.7	375.5	358.7	326.2	302.3	291.8	302.3	326.2
157.5°	302.1	312.2	328.8	353.5	365.7	353.5	328.8	312.2	302.1	312.2	328.8
160°	309.0	317.4	330.5	350.0	360.5	350.0	330.5	317.4	309.0	317.4	330.5
162.5°	314.2	322.6	332.2	348.2	355.4	348.2	332.2	322.6	314.2	322.6	332.2
165°	324.0	328.2	334.8	343.5	349.8	343.5	334.8	328.2	324.0	328.2	334.8
167.5°	329.6	333.4	336.9	341.3	345.1	341.3	336.9	333.4	329.6	333.4	336.9
170°	334.8	336.9	336.9	341.2	343.3	341.2	336.9	336.9	334.8	336.9	336.9
172.5°	336.5	340.3	338.6	339.5	341.6	339.5	338.6	340.3	336.5	340.3	338.6
175°	341.2	343.3	341.2	339.0	336.9	339.0	341.2	343.3	341.2	343.3	341.2
177.5°	341.2	342.9	341.2	341.2	339.5	341.2	341.2	342.9	341.2	342.9	341.2
180°	341.2	341.2	341.2	341.2	341.2	341.2	341.2	341.2	341.2	341.2	341.2



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**CANDELA DISTRIBUTION (continued):**

	247.5°	270°	292.5°	315°	337.5°	360°
0°	716.6	716.6	716.6	716.6	716.6	716.6
2.5°	669.9	669.3	670.5	680.4	700.7	718.9
5°	610.2	612.3	614.5	631.3	666.6	715.1
7.5°	564.3	561.2	566.0	593.4	636.8	706.4
10°	532.7	525.6	532.7	570.0	620.6	697.6
12.5°	502.9	494.1	505.2	546.1	607.3	686.0
15°	464.5	473.1	468.1	513.9	587.1	665.5
17.5°	473.6	516.7	482.8	485.9	567.1	644.5
20°	495.2	539.4	509.5	467.3	554.2	627.6
22.5°	514.8	548.2	521.1	451.5	541.3	612.5
25°	529.9	558.4	528.4	437.4	522.7	586.8
27.5°	530.6	534.6	530.9	436.2	499.6	561.3
30°	520.8	503.7	519.4	437.4	483.2	540.9
32.5°	492.8	473.4	486.8	435.0	466.6	514.1
35°	452.8	427.2	445.7	422.8	440.9	468.7
37.5°	410.7	378.2	403.8	398.6	419.0	407.9
40°	382.1	325.1	376.4	374.7	407.1	357.2
42.5°	345.6	297.1	340.5	355.4	393.9	328.6
45°	279.1	273.4	276.2	322.9	365.9	299.6
47.5°	255.2	251.3	253.8	293.3	334.2	286.9
50°	241.2	236.2	239.7	274.1	314.1	277.0
52.5°	221.7	208.2	220.3	247.8	293.2	260.7
55°	166.7	126.1	166.0	218.0	261.8	233.3
57.5°	97.8	72.9	95.7	189.7	221.8	204.3
60°	66.2	61.2	66.9	166.9	195.2	187.3
62.5°	60.5	58.9	60.6	116.2	171.4	170.4
65°	55.4	54.7	55.4	67.1	141.5	145.8
67.5°	50.1	49.4	50.7	51.5	111.7	120.7
70°	46.6	45.9	46.6	47.4	85.7	105.0
72.5°	42.6	41.8	42.6	43.3	60.3	89.8
75°	36.4	35.7	36.4	37.2	40.0	67.8
77.5°	29.5	29.5	30.2	30.2	28.0	47.1
80°	24.8	24.8	25.5	25.5	24.3	34.3
82.5°	20.1	19.5	20.8	21.4	20.1	24.3
85°	12.4	11.7	13.1	13.9	13.1	11.7
87.5°	5.9	5.4	6.5	7.3	6.8	3.5
90°	6.4	6.4	6.4	4.3	2.1	0.0
92.5°	13.3	15.0	13.3	9.4	7.2	5.2
95°	19.4	23.6	19.4	17.2	31.9	17.2
97.5°	37.2	32.2	37.2	126.2	61.1	30.5
100°	74.5	49.4	74.5	253.2	76.4	40.8
102.5°	196.7	107.7	196.7	342.5	88.4	51.1
105°	496.2	328.3	496.2	388.4	102.2	66.5
107.5°	722.1	676.4	722.1	370.8	108.8	82.0
110°	758.8	815.4	758.8	360.5	117.5	92.3





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**CANDELA DISTRIBUTION (continued):**

	247.5°	270°	292.5°	315°	337.5°	360°
112.5°	737.4	832.6	737.4	350.2	127.8	102.6
115°	695.8	813.3	695.8	334.8	143.2	118.0
117.5°	650.8	771.7	650.8	330.9	158.7	133.9
120°	616.6	742.5	616.6	324.0	169.0	145.9
122.5°	587.2	703.0	587.2	315.4	179.3	154.5
125°	551.6	652.4	551.6	315.4	192.6	169.5
127.5°	510.4	609.9	510.4	315.9	205.5	182.0
130°	482.8	577.2	482.8	317.6	214.0	188.8
132.5°	470.4	548.1	470.4	317.6	222.6	197.4
135°	454.3	521.5	454.3	317.6	233.4	210.3
137.5°	436.5	494.0	436.5	317.6	245.8	221.0
140°	426.1	478.5	426.1	317.6	252.7	229.6
142.5°	414.0	463.1	414.0	319.3	259.6	238.2
145°	395.8	437.8	395.8	319.7	269.9	248.9
147.5°	382.7	415.0	382.7	322.3	280.3	261.8
150°	374.0	401.3	374.0	324.0	287.2	270.4
152.5°	367.0	389.3	367.0	324.0	294.1	279.0
155°	358.7	375.5	358.7	326.2	302.3	291.8
157.5°	353.5	365.7	353.5	328.8	312.2	302.1
160°	350.0	360.5	350.0	330.5	317.4	309.0
162.5°	348.2	355.4	348.2	332.2	322.6	314.2
165°	343.5	349.8	343.5	334.8	328.2	324.0
167.5°	341.3	345.1	341.3	336.9	333.4	329.6
170°	341.2	343.3	341.2	336.9	336.9	334.8
172.5°	339.5	341.6	339.5	338.6	340.3	336.5
175°	339.0	336.9	339.0	341.2	343.3	341.2
177.5°	341.2	339.5	341.2	341.2	342.9	341.2
180°	341.2	341.2	341.2	341.2	341.2	341.2

(END OF REPORT)