

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: io LED

Report Number: P135764

Luminaire Tested: **LD6A10D010TE ERM6A10927 6LM121LI**

Issue Date: 3/3/2020

Test Information

Test Method: LM-41-14
Report Number: P135764
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P23357-R2)
Test Lab: INNOVATION CENTER P2
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: io LED
Catalog Number: LD6A10D010TE ERM6A10927 6LM121LI
Description: PORTFOLIO 6 INCH 50 DEGREE CUTOFF RECESSED DOUBLE WALL WASH LUMINAIRE
SPECULAR CLEAR TRIM AND SPECULAR CLEAR KICKER
Light Source: (1) HIGH LUMEN LED 2700K
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 1033.7 lumens
Efficiency: N/A
Efficacy: 73.8 lumens/watt
Spacing Criteria (0/90/45): 0.86 / 1.02 / 0.97
Luminous Opening: Circular (Dia: 0.46' x H: 0')
CIE Type: Direct

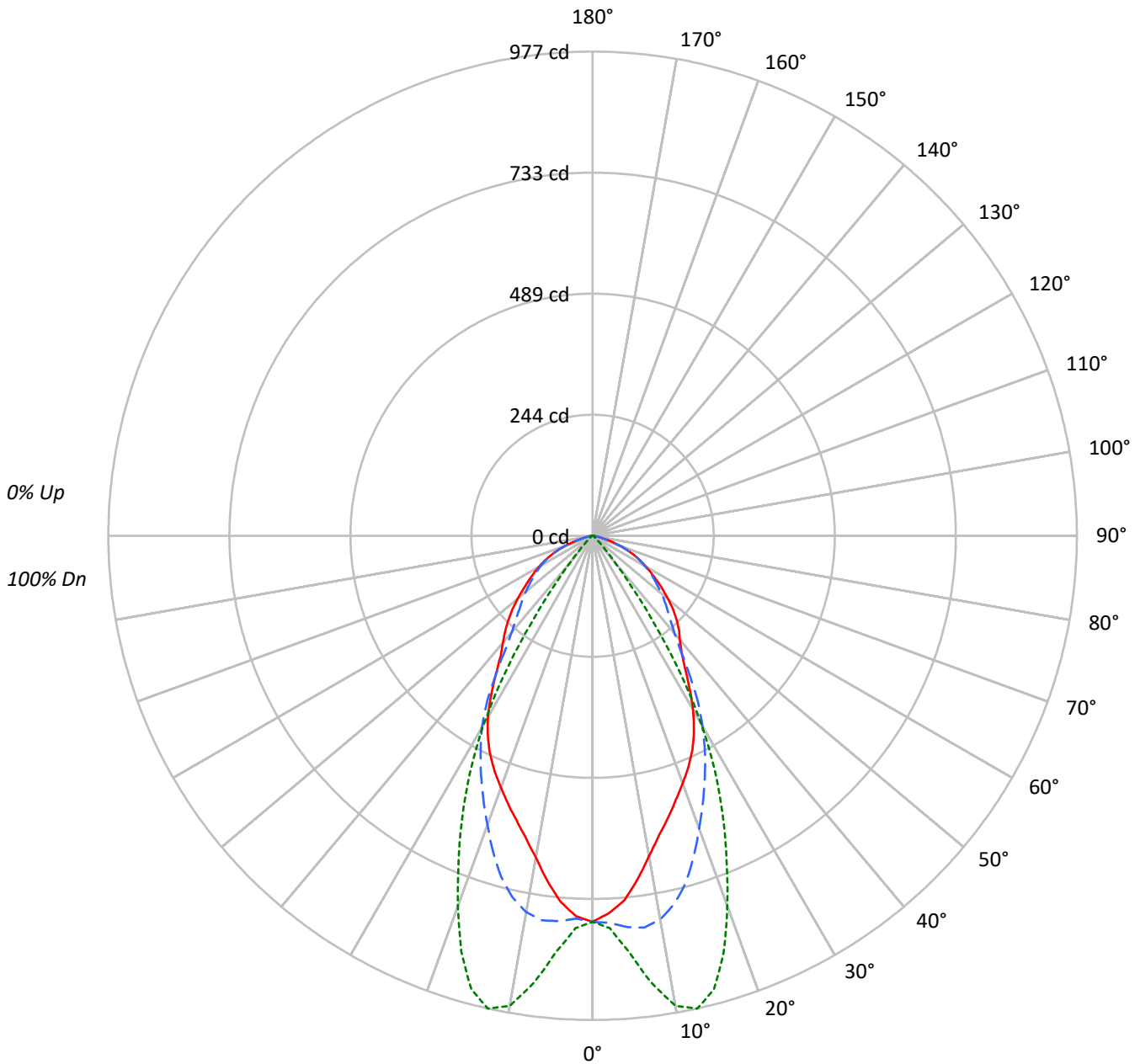
Input Watts (W): 14
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Luminous Intensity Polar Plot





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COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:

RF	20					20					20					20					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	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100								
1	112	108	105	102	109	106	103	101	102	100	97	98	96	95	95	93	92	90								
2	104	98	93	89	102	96	91	87	93	89	86	90	87	84	87	84	82	80								
3	97	89	83	78	95	88	82	77	85	80	76	82	78	75	80	76	73	72								
4	91	81	74	69	89	80	74	69	78	72	68	76	71	67	74	70	66	64								
5	85	75	68	62	83	74	67	62	72	66	61	70	65	61	68	64	60	58								
6	80	69	62	56	78	68	61	56	66	60	56	65	59	55	63	59	55	53								
7	75	64	57	52	74	63	56	51	62	56	51	60	55	51	59	54	50	49								
8	71	59	52	47	69	59	52	47	58	51	47	57	51	47	55	50	47	45								
9	67	56	49	44	66	55	48	44	54	48	44	53	47	43	52	47	43	42								
10	63	52	45	41	62	52	45	41	51	45	41	50	44	40	49	44	40	39								

AVERAGE LUMINANCE (cd/sqm):

	0°	90°	180°
0°	50816	50816	50816
5°	48325	55182	48554
10°	43438	63803	43670
15°	39742	63942	40127
20°	36873	55160	37512
25°	34301	44703	35172
30°	30510	33079	31843
35°	25773	17482	27015
40°	23276	5851	23940
45°	22079	2021	22153
50°	20198	863	19974
55°	18040	648	17880
60°	16075	652	16271
65°	14218	648	14310
70°	10949	534	10796
75°	6781	353	6428
80°	3456	263	3193
85°	1572	0	1572



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	75.6	7.3
10°-20°	206.3	20.0
20°-30°	248.3	24.0
30°-40°	193.0	18.7
40°-50°	129.1	12.5
50°-60°	97.2	9.4
60°-70°	62.4	6.0
70°-80°	20.0	1.9
80°-90°	1.9	0.2
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°	530.2	51.3
0°-40°	723.1	70.0
0°-60°	949.4	91.9
0°-90°	1033.7	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1033.7	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	779	779	779	779	779	
5°	738	792	843	780	741	68
15°	588	725	947	712	594	165
25°	476	535	621	532	489	217
35°	324	338	220	338	339	206
45°	239	214	22	209	240	184
55°	159	150	6	147	157	143
65°	92	93	4	91	93	90
75°	27	26	1	24	26	31
85°	2	2	0	2	2	3
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°	778.9	778.9	778.9	778.9	778.9	778.9	778.9	778.9	778.9	778.9	778.9
2.5°	761.9	768.3	766.2	776.1	769.0	768.3	773.2	776.1	776.8	781.8	781.8
5°	737.9	745.0	742.8	755.6	752.8	755.6	766.2	774.0	781.0	792.4	799.5
7.5°	698.2	706.7	708.1	720.9	722.3	730.1	747.1	762.7	777.5	797.4	814.4
10°	655.7	664.2	666.4	680.5	684.7	695.4	717.3	737.2	758.4	786.0	811.5
12.5°	618.9	627.4	630.2	644.3	649.3	661.4	684.7	706.7	730.8	761.2	791.7
15°	588.4	596.2	599.1	611.8	616.8	628.1	650.0	671.3	694.7	725.1	754.9
17.5°	558.7	566.5	568.6	580.0	583.5	593.4	613.2	631.7	651.5	678.4	705.3
20°	531.1	538.1	539.6	549.5	551.6	559.4	575.7	590.5	606.9	628.1	650.0
22.5°	504.9	512.0	512.7	521.1	521.9	528.2	541.7	553.0	564.4	581.4	597.0
25°	476.5	483.6	484.3	491.4	492.1	496.4	507.0	515.5	523.3	535.4	545.9
27.5°	442.6	449.6	451.7	456.7	457.4	460.3	469.5	475.2	483.0	490.8	495.0
30°	405.0	411.4	414.3	418.5	419.3	423.5	431.9	436.2	441.2	442.6	443.9
32.5°	363.3	370.3	373.2	376.7	378.9	383.1	390.9	393.0	394.5	393.7	385.9
35°	323.6	330.0	332.8	337.1	338.5	341.3	347.6	347.0	344.9	338.5	324.3
37.5°	293.9	298.8	301.7	304.5	305.2	306.6	310.2	307.3	301.7	291.0	272.6
40°	273.3	278.2	279.0	281.8	281.1	281.1	281.8	276.9	269.8	257.0	235.8
42.5°	257.8	262.0	262.0	264.8	262.7	261.3	261.3	255.7	246.4	233.0	211.7
45°	239.3	242.9	243.6	245.0	242.9	241.4	241.4	235.8	227.3	213.9	192.6
47.5°	220.2	223.8	223.8	225.9	223.8	222.3	222.3	217.4	209.6	197.6	177.7
50°	199.0	202.5	203.2	204.6	203.2	202.5	203.2	198.3	191.9	181.3	163.6
52.5°	178.5	181.9	181.9	183.4	181.9	181.9	182.7	179.2	173.5	165.0	149.5
55°	158.6	161.5	162.9	164.3	162.1	162.1	162.9	160.7	156.5	150.1	136.7
57.5°	140.2	143.0	143.8	145.1	143.8	144.5	145.1	143.0	140.9	136.0	125.3
60°	123.2	126.0	126.8	127.4	126.8	126.8	127.4	126.8	125.3	121.8	112.5
62.5°	107.6	109.8	110.4	111.9	110.4	109.8	111.2	110.4	109.8	107.6	101.3
65°	92.1	93.5	94.2	94.9	93.5	92.1	93.5	93.5	94.2	92.7	87.9
67.5°	75.1	76.5	76.5	76.5	74.4	73.6	75.1	75.1	76.5	75.7	72.2
70°	57.4	58.1	58.1	58.1	55.3	55.3	55.9	55.9	57.4	57.4	55.3
72.5°	41.0	40.4	40.4	39.7	38.9	37.5	37.5	38.3	39.7	39.7	38.3
75°	26.9	26.2	25.5	25.5	24.8	23.4	23.4	24.1	24.8	25.5	24.8
77.5°	16.2	15.6	15.6	14.9	14.9	14.1	14.1	14.1	14.9	14.9	14.9
80°	9.2	8.5	8.5	8.5	7.8	7.8	7.8	7.8	7.8	8.5	7.8
82.5°	5.0	4.2	4.2	4.2	4.2	4.2	3.6	4.2	4.2	4.2	4.2
85°	2.1	2.1	2.1	2.1	1.4	1.4	1.4	1.4	1.4	2.1	2.1
87.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
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):

	55°	60°	65°	70°	75°	80°	85°	90°	95°	100°	105°
0°	778.9	778.9	778.9	778.9	778.9	778.9	778.9	778.9	778.9	778.9	778.9
2.5°	779.7	786.7	781.8	797.4	786.7	792.4	800.1	792.4	794.5	799.5	789.6
5°	803.7	816.5	817.8	839.1	830.6	840.5	851.2	842.6	844.1	847.6	834.8
7.5°	828.5	851.2	861.8	891.6	889.4	905.7	918.5	909.9	909.9	910.7	891.6
10°	835.6	868.9	888.7	925.5	931.2	954.5	968.7	963.1	961.6	959.5	933.3
12.5°	820.0	861.1	886.6	927.6	938.9	966.6	979.3	977.2	975.1	970.9	940.4
15°	783.9	826.4	853.3	893.7	907.8	936.2	946.7	946.7	944.6	940.4	907.8
17.5°	730.8	770.5	795.2	830.6	844.7	871.0	878.1	880.2	878.1	873.8	844.1
20°	670.6	703.8	723.7	752.8	764.1	786.7	790.9	794.5	793.1	789.6	763.3
22.5°	611.8	638.0	652.9	678.4	682.6	701.7	703.2	706.0	705.3	703.8	682.6
25°	558.0	575.7	584.2	603.3	604.8	618.9	618.2	621.0	620.3	620.3	604.0
27.5°	501.3	512.0	514.1	526.1	523.3	533.9	535.4	533.9	534.6	535.4	523.3
30°	444.7	446.8	440.5	441.8	434.1	440.5	434.1	439.1	439.1	441.2	434.1
32.5°	380.2	373.9	356.9	348.4	335.0	335.0	331.4	331.4	331.4	335.0	333.5
35°	311.6	296.0	269.8	251.3	232.3	227.3	226.6	219.5	221.0	225.9	229.4
37.5°	252.8	229.4	194.7	168.5	145.9	136.0	132.4	126.8	128.9	134.6	143.0
40°	211.0	182.7	142.3	111.9	89.2	77.9	72.2	68.7	70.8	77.9	88.5
42.5°	184.8	153.7	110.4	78.6	57.4	46.7	41.0	38.3	40.4	46.7	59.5
45°	165.7	133.1	89.2	58.1	38.9	29.0	24.1	21.9	23.4	29.0	39.7
47.5°	150.8	117.5	74.4	44.6	27.6	19.1	14.9	12.8	14.1	19.1	27.6
50°	137.3	104.8	63.1	35.4	21.2	14.1	9.9	8.5	9.9	13.5	20.6
52.5°	125.3	93.5	53.8	29.0	16.2	11.3	7.8	6.3	7.1	10.6	16.2
55°	114.8	85.0	47.5	24.8	14.1	9.9	7.1	5.7	7.1	9.2	14.1
57.5°	104.8	76.5	41.8	21.2	12.0	8.5	6.3	5.7	6.3	8.5	12.0
60°	94.9	68.0	36.8	18.5	10.6	7.8	5.7	5.0	5.7	7.1	10.6
62.5°	85.0	60.2	31.9	15.6	9.2	6.3	5.0	4.2	5.0	6.3	9.2
65°	73.6	50.9	26.9	13.5	7.8	5.7	4.2	4.2	4.2	5.7	7.8
67.5°	60.9	41.8	21.2	10.6	6.3	5.0	3.6	3.6	3.6	5.0	6.3
70°	46.7	31.1	16.2	8.5	5.0	3.6	2.8	2.8	2.8	3.6	5.0
72.5°	32.6	21.9	11.3	6.3	3.6	2.8	2.1	2.1	2.1	2.8	3.6
75°	20.6	14.1	7.8	4.2	2.8	2.1	1.4	1.4	1.4	2.1	2.8
77.5°	12.0	8.5	5.0	2.8	1.4	1.4	0.7	0.7	0.7	1.4	1.4
80°	6.3	5.0	2.8	1.4	0.7	0.7	0.7	0.7	0.7	0.7	0.7
82.5°	3.6	2.1	1.4	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7
85°	1.4	0.7	0.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
87.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
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):

	110°	115°	120°	125°	130°	135°	140°	145°	150°	155°	160°
0°	778.9	778.9	778.9	778.9	778.9	778.9	778.9	778.9	778.9	778.9	778.9
2.5°	786.7	789.6	788.8	774.0	772.6	773.2	763.3	766.9	770.5	766.9	767.6
5°	824.9	824.3	815.7	794.5	786.0	780.4	764.1	761.2	759.1	751.3	748.4
7.5°	875.2	865.3	847.6	815.7	798.0	782.5	758.4	746.3	737.9	724.4	716.6
10°	909.9	890.1	863.9	822.2	795.2	771.1	740.0	721.5	707.4	689.7	678.4
12.5°	914.9	887.2	856.9	807.9	776.8	747.1	713.1	692.5	676.3	657.1	646.5
15°	883.0	854.7	822.8	774.0	742.8	712.4	679.8	659.2	643.0	624.5	615.3
17.5°	822.8	796.6	768.3	723.0	696.1	668.5	639.4	621.8	607.5	593.4	584.2
20°	746.3	725.9	702.5	664.2	643.0	620.3	597.6	583.5	572.8	560.8	553.7
22.5°	670.6	655.0	638.0	607.5	592.0	575.7	558.0	548.0	540.3	531.1	526.1
25°	597.6	587.1	576.4	553.0	543.8	532.5	519.8	512.7	507.7	501.3	497.8
27.5°	521.9	518.3	515.5	500.7	497.1	489.3	480.8	476.5	473.0	468.7	466.0
30°	439.7	441.8	453.2	445.4	448.9	446.8	443.3	440.5	439.1	435.5	431.9
32.5°	347.0	361.9	378.1	380.2	390.9	395.8	395.1	395.8	396.6	393.7	390.9
35°	248.6	272.6	298.1	309.5	327.2	338.5	342.7	347.0	349.8	349.1	347.0
37.5°	165.7	198.3	228.8	248.6	271.9	287.5	296.7	303.8	308.0	309.5	309.5
40°	110.4	141.6	181.9	207.5	233.7	252.8	263.5	272.6	279.0	281.8	283.2
42.5°	77.9	111.2	152.2	181.3	208.2	228.8	240.8	250.7	257.0	260.6	262.0
45°	57.4	89.2	131.7	161.5	189.1	208.9	221.0	230.1	236.5	240.1	242.2
47.5°	43.9	75.1	116.1	146.6	174.2	192.6	204.0	212.4	218.1	221.0	222.3
50°	34.7	63.1	103.4	133.8	159.4	176.3	186.3	193.3	198.3	200.4	201.8
52.5°	28.4	54.5	92.7	121.8	145.9	160.7	168.5	174.2	178.5	179.8	181.3
55°	24.1	47.5	83.5	111.9	133.8	146.6	152.2	157.2	159.4	160.7	161.5
57.5°	21.2	41.8	75.7	102.6	122.5	133.1	137.3	140.9	141.6	143.0	143.8
60°	18.5	36.1	67.3	92.7	110.4	119.7	121.8	124.7	124.7	125.3	126.0
62.5°	15.6	31.1	58.8	82.9	98.4	106.2	107.6	108.3	108.3	108.3	109.1
65°	12.8	26.2	49.6	71.5	85.6	90.6	91.3	92.1	90.6	90.6	91.3
67.5°	10.6	20.6	39.7	58.8	70.1	74.4	73.6	73.6	71.5	71.5	72.2
70°	7.8	15.6	29.7	44.6	53.2	55.9	54.5	54.5	52.4	52.4	53.2
72.5°	5.7	11.3	20.6	30.5	36.8	38.3	36.8	36.8	35.4	35.4	36.1
75°	4.2	7.1	13.5	19.8	23.4	24.1	23.4	22.7	21.9	21.9	22.7
77.5°	2.8	5.0	7.8	11.3	13.5	14.1	13.5	13.5	12.8	13.5	13.5
80°	1.4	2.8	4.2	6.3	7.1	7.8	7.8	7.8	7.1	7.1	7.8
82.5°	0.7	1.4	2.1	2.8	3.6	4.2	3.6	3.6	3.6	3.6	3.6
85°	0.0	0.7	0.7	1.4	1.4	2.1	1.4	1.4	1.4	1.4	1.4
87.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
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°	778.9	778.9	778.9	778.9
2.5°	766.2	762.7	757.7	768.3
5°	744.2	737.2	731.5	741.4
7.5°	709.5	699.6	691.8	701.7
10°	669.9	658.6	650.0	659.2
12.5°	635.2	623.9	616.8	623.9
15°	604.8	594.1	587.7	594.1
17.5°	575.0	565.8	560.2	567.2
20°	546.7	538.9	533.9	540.3
22.5°	520.5	513.3	509.1	515.5
25°	492.9	487.9	483.0	488.6
27.5°	462.4	456.7	453.9	457.4
30°	427.7	422.0	419.9	422.7
32.5°	386.7	381.0	378.9	381.0
35°	344.2	339.2	336.4	339.2
37.5°	308.0	303.8	301.7	303.8
40°	282.6	280.4	278.2	281.1
42.5°	262.7	260.6	259.2	261.3
45°	242.2	239.3	237.9	240.1
47.5°	221.6	218.9	217.4	218.9
50°	200.4	196.8	196.2	196.8
52.5°	179.2	176.3	174.9	175.6
55°	160.0	157.9	156.5	157.2
57.5°	143.0	140.2	139.5	140.2
60°	126.0	124.7	123.9	124.7
62.5°	109.1	108.3	109.1	109.1
65°	92.1	92.1	92.7	92.7
67.5°	73.6	75.1	75.7	75.7
70°	54.5	55.9	56.6	56.6
72.5°	36.8	38.3	38.9	39.7
75°	23.4	24.8	25.5	25.5
77.5°	14.1	14.9	14.9	15.6
80°	7.8	8.5	8.5	8.5
82.5°	4.2	4.2	4.2	5.0
85°	2.1	2.1	2.1	2.1
87.5°	0.0	0.7	0.7	0.7
90°	0.0	0.0	0.0	0.0



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— 0°-180° - - 45°-225° - - - - 90°-270°













(END OF REPORT)