

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: P135767

Luminaire Tested: **LD6A10D010TE ERM6A10940 6LM121LI**

Issue Date: 3/3/2020

Test Information

Test Method: LM-41-14
Report Number: P135767
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 ERM6A10940 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 4000K
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 1132.8 lumens
Efficiency: N/A
Efficacy: 80.9 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

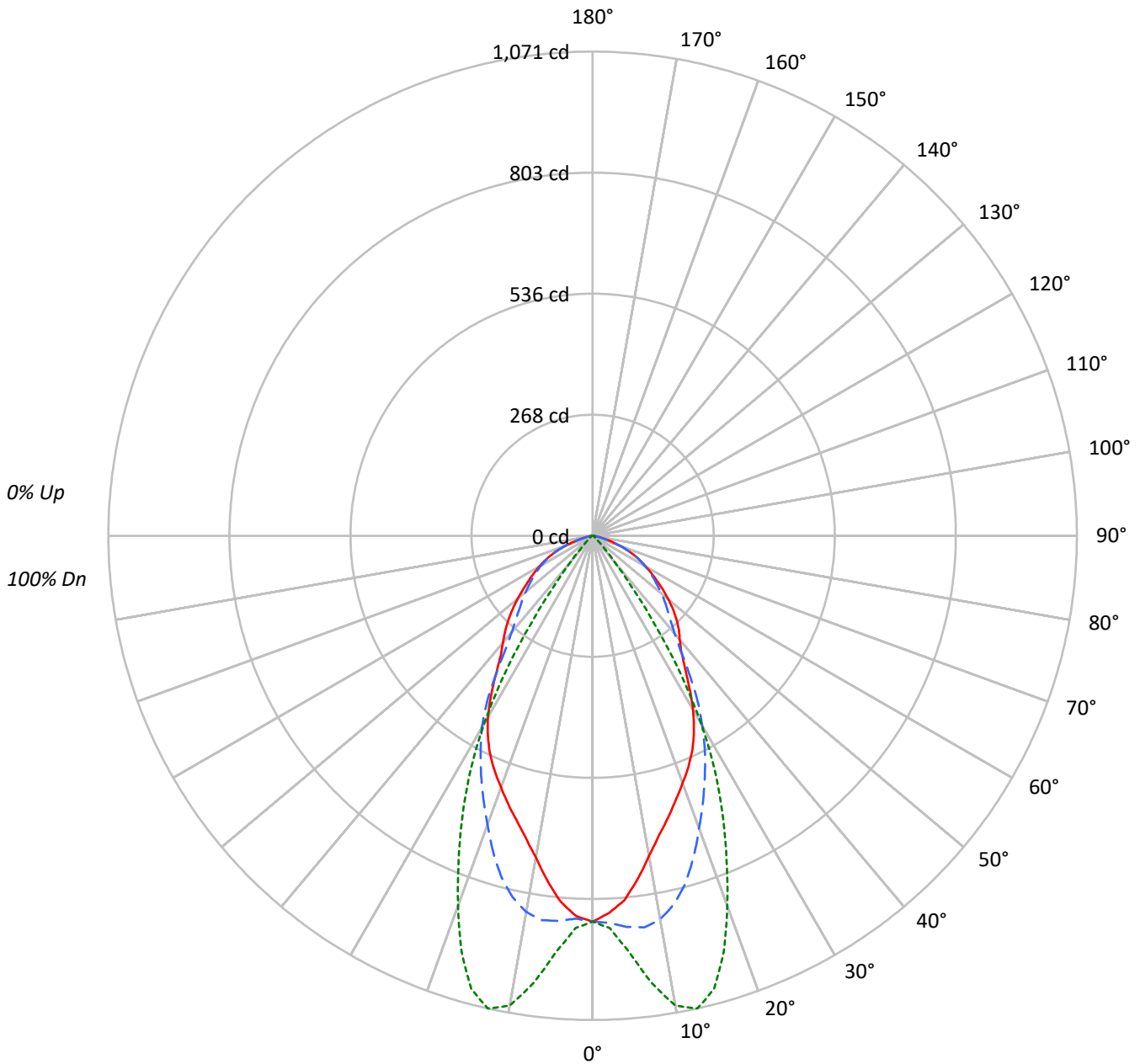
Input Watts (W): 14
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Luminous Intensity Polar Plot





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COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:

RF	20									20									20									20									
RC	80									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°	55689	55689	55689
5°	52962	60480	53210
10°	47605	69917	47864
15°	43558	70075	43977
20°	40407	60451	41108
25°	37598	48993	38548
30°	33440	36243	34902
35°	28242	19162	29604
40°	25507	6413	26240
45°	24201	2224	24275
50°	22126	944	21893
55°	19780	705	19598
60°	17615	705	17824
65°	15576	726	15684
70°	11998	591	11846
75°	7436	403	7033
80°	3795	263	3494
85°	1722	0	1722



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	82.8	7.3
10°-20°	226.1	20.0
20°-30°	272.1	24.0
30°-40°	211.5	18.7
40°-50°	141.5	12.5
50°-60°	106.5	9.4
60°-70°	68.4	6.0
70°-80°	21.9	1.9
80°-90°	2.1	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°	581.0	51.3
0°-40°	792.5	70.0
0°-60°	1040.5	91.9
0°-90°	1132.8	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1132.8	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	854	854	854	854	854	
5°	809	868	924	855	812	74
15°	645	795	1038	781	651	181
25°	522	587	681	584	536	238
35°	355	371	241	371	372	225
45°	262	234	24	229	263	201
55°	174	164	6	161	172	156
65°	101	102	5	99	102	99
75°	30	28	2	26	28	34
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°	853.6	853.6	853.6	853.6	853.6	853.6	853.6	853.6	853.6	853.6	853.6
2.5°	835.0	842.0	839.7	850.5	842.8	842.0	847.4	850.5	851.4	856.8	856.8
5°	808.7	816.4	814.1	828.0	824.9	828.0	839.7	848.2	855.9	868.4	876.1
7.5°	765.2	774.5	776.1	790.0	791.6	800.1	818.8	835.7	852.1	873.8	892.5
10°	718.6	727.9	730.3	745.8	750.5	762.0	786.1	807.8	831.2	861.4	889.4
12.5°	678.2	687.6	690.7	706.2	711.6	724.9	750.5	774.5	800.9	834.3	867.6
15°	644.9	653.4	656.6	670.5	675.9	688.3	712.4	735.7	761.3	794.6	827.3
17.5°	612.3	620.8	623.1	635.5	639.5	650.3	672.1	692.3	713.9	743.5	773.0
20°	582.0	589.8	591.4	602.2	604.5	613.0	630.9	647.2	665.1	688.3	712.4
22.5°	553.3	561.1	561.8	571.2	571.9	578.9	593.7	606.1	618.5	637.1	654.2
25°	522.3	530.1	530.8	538.6	539.3	544.0	555.7	564.9	573.5	586.7	598.4
27.5°	485.0	492.8	495.1	500.6	501.3	504.4	514.5	520.7	529.2	537.8	542.4
30°	443.9	450.9	454.0	458.6	459.5	464.0	473.4	478.0	483.5	485.0	486.5
32.5°	398.1	405.8	409.0	412.8	415.2	419.8	428.3	430.7	432.3	431.5	422.9
35°	354.6	361.6	364.7	369.4	371.0	374.1	381.1	380.2	377.9	371.0	355.4
37.5°	322.0	327.5	330.6	333.7	334.4	336.0	339.9	336.8	330.6	318.9	298.8
40°	299.5	305.0	305.8	308.9	308.1	308.1	308.9	303.4	295.7	281.7	258.4
42.5°	282.5	287.2	287.2	290.3	287.9	286.3	286.3	280.2	270.1	255.3	232.1
45°	262.3	266.2	267.0	268.5	266.2	264.7	264.7	258.4	249.1	234.4	211.0
47.5°	241.3	245.2	245.2	247.6	245.2	243.6	243.6	238.2	229.7	216.6	194.8
50°	218.0	222.0	222.7	224.3	222.7	222.0	222.7	217.3	210.3	198.7	179.3
52.5°	195.5	199.5	199.5	201.0	199.5	199.5	200.2	196.4	190.1	180.8	163.8
55°	173.9	176.9	178.5	180.0	177.7	177.7	178.5	176.2	171.5	164.5	149.8
57.5°	153.7	156.8	157.5	159.1	157.5	158.4	159.1	156.8	154.4	149.0	137.3
60°	135.0	138.2	138.9	139.7	138.9	138.9	139.7	138.9	137.3	133.5	123.4
62.5°	118.0	120.3	121.1	122.6	121.1	120.3	121.8	121.1	120.3	118.0	111.0
65°	100.9	102.4	103.2	104.0	102.4	100.9	102.4	102.4	103.2	101.6	96.2
67.5°	82.3	83.8	83.8	83.8	81.5	80.7	82.3	82.3	83.8	83.1	79.1
70°	62.9	63.6	63.6	63.6	60.5	60.5	61.3	61.3	62.9	62.9	60.5
72.5°	45.0	44.2	44.2	43.4	42.7	41.1	41.1	41.9	43.4	43.4	41.9
75°	29.5	28.7	27.9	27.9	27.2	25.6	25.6	26.3	27.2	27.9	27.2
77.5°	17.8	17.1	17.1	16.3	16.3	15.5	15.5	15.5	16.3	16.3	16.3
80°	10.1	9.3	9.3	9.3	8.5	8.5	8.5	8.5	8.5	9.3	8.5
82.5°	5.4	4.7	4.7	4.7	4.7	4.7	3.9	4.7	4.7	4.7	4.7
85°	2.3	2.3	2.3	2.3	1.6	1.6	1.6	1.6	1.6	2.3	2.3
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°	853.6	853.6	853.6	853.6	853.6	853.6	853.6	853.6	853.6	853.6	853.6
2.5°	854.4	862.2	856.8	873.8	862.2	868.4	877.0	868.4	870.7	876.1	865.3
5°	880.8	894.8	896.3	919.6	910.3	921.1	932.8	923.5	925.1	928.9	915.0
7.5°	908.0	932.8	944.4	977.0	974.7	992.5	1006.5	997.2	997.2	998.0	977.0
10°	915.7	952.2	973.9	1014.3	1020.4	1046.1	1061.6	1055.4	1053.9	1051.6	1022.8
12.5°	898.6	943.7	971.6	1016.6	1029.0	1059.3	1073.2	1070.9	1068.6	1064.0	1030.5
15°	859.1	905.6	935.2	979.3	994.8	1026.0	1037.5	1037.5	1035.2	1030.5	994.8
17.5°	800.9	844.3	871.5	910.3	925.8	954.5	962.2	964.6	962.2	957.7	925.1
20°	735.0	771.4	793.2	824.9	837.3	862.2	866.9	870.7	869.2	865.3	836.6
22.5°	670.5	699.2	715.5	743.5	748.1	769.0	770.6	773.7	773.0	771.4	748.1
25°	611.5	630.9	640.2	661.1	662.7	678.2	677.5	680.6	679.8	679.8	662.0
27.5°	549.4	561.1	563.4	576.6	573.5	585.1	586.7	585.1	585.9	586.7	573.5
30°	487.4	489.7	482.7	484.2	475.7	482.7	475.7	481.1	481.1	483.5	475.7
32.5°	416.8	409.7	391.2	381.8	367.1	367.1	363.2	363.2	363.2	367.1	365.5
35°	341.5	324.4	295.7	275.5	254.6	249.1	248.3	240.6	242.2	247.6	251.4
37.5°	277.1	251.4	213.4	184.7	159.8	149.0	145.1	138.9	141.3	147.4	156.8
40°	231.2	200.2	156.0	122.6	97.8	85.4	79.1	75.3	77.6	85.4	97.0
42.5°	202.5	168.4	121.1	86.1	62.9	51.2	45.0	41.9	44.2	51.2	65.2
45°	181.6	145.9	97.8	63.6	42.7	31.9	26.3	24.1	25.6	31.9	43.4
47.5°	165.3	128.8	81.5	48.9	30.3	20.9	16.3	14.0	15.5	20.9	30.3
50°	150.6	114.8	69.0	38.8	23.3	15.5	10.8	9.3	10.8	14.8	22.5
52.5°	137.3	102.4	58.9	31.9	17.8	12.4	8.5	7.0	7.8	11.7	17.8
55°	125.7	93.1	52.0	27.2	15.5	10.8	7.8	6.2	7.8	10.1	15.5
57.5°	114.8	83.8	45.8	23.3	13.2	9.3	7.0	6.2	7.0	9.3	13.2
60°	104.0	74.5	40.4	20.2	11.7	8.5	6.2	5.4	6.2	7.8	11.7
62.5°	93.1	66.0	34.9	17.1	10.1	7.0	5.4	4.7	5.4	7.0	10.1
65°	80.7	55.9	29.5	14.8	8.5	6.2	4.7	4.7	4.7	6.2	8.5
67.5°	66.7	45.8	23.3	11.7	7.0	5.4	3.9	3.9	3.9	5.4	7.0
70°	51.2	34.1	17.8	9.3	5.4	3.9	3.1	3.1	3.1	3.9	5.4
72.5°	35.7	24.1	12.4	7.0	3.9	3.1	2.3	2.3	2.3	3.1	3.9
75°	22.5	15.5	8.5	4.7	3.1	2.3	1.6	1.6	1.6	2.3	3.1
77.5°	13.2	9.3	5.4	3.1	1.6	1.6	0.7	0.7	0.7	1.6	1.6
80°	7.0	5.4	3.1	1.6	0.7	0.7	0.7	0.7	0.7	0.7	0.7
82.5°	3.9	2.3	1.6	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7
85°	1.6	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°	853.6	853.6	853.6	853.6	853.6	853.6	853.6	853.6	853.6	853.6	853.6
2.5°	862.2	865.3	864.5	848.2	846.7	847.4	836.6	840.4	844.3	840.4	841.3
5°	904.0	903.3	894.0	870.7	861.4	855.2	837.3	834.3	831.9	823.4	820.2
7.5°	959.2	948.3	928.9	894.0	874.6	857.5	831.2	817.9	808.7	793.9	785.3
10°	997.2	975.5	946.7	901.0	871.5	845.1	811.0	790.8	775.3	755.9	743.5
12.5°	1002.6	972.3	939.0	885.5	851.4	818.8	781.5	759.0	741.1	720.2	708.5
15°	967.8	936.6	901.8	848.2	814.1	780.7	745.0	722.5	704.7	684.5	674.4
17.5°	901.8	873.0	842.0	792.3	762.9	732.6	700.8	681.3	665.8	650.3	640.2
20°	817.9	795.4	769.8	727.9	704.7	679.8	655.0	639.5	627.8	614.6	606.9
22.5°	735.0	717.9	699.2	665.8	648.8	630.9	611.5	600.6	592.1	582.0	576.6
25°	655.0	643.3	631.7	606.1	596.0	583.6	569.6	561.8	556.4	549.4	545.6
27.5°	571.9	568.1	564.9	548.7	544.7	536.2	526.9	522.3	518.4	513.7	510.6
30°	482.0	484.2	496.6	488.1	492.0	489.7	485.8	482.7	481.1	477.3	473.4
32.5°	380.2	396.6	414.4	416.8	428.3	433.8	433.0	433.8	434.6	431.5	428.3
35°	272.4	298.8	326.7	339.1	358.6	371.0	375.6	380.2	383.4	382.6	380.2
37.5°	181.6	217.3	250.7	272.4	298.0	315.1	325.2	333.0	337.5	339.1	339.1
40°	121.1	155.2	199.5	227.4	256.1	277.1	288.7	298.8	305.8	308.9	310.4
42.5°	85.4	121.8	166.9	198.7	228.1	250.7	263.8	274.8	281.7	285.6	287.2
45°	62.9	97.8	144.3	176.9	207.2	228.9	242.2	252.2	259.2	263.1	265.4
47.5°	48.1	82.3	127.2	160.6	190.9	211.0	223.5	232.8	239.0	242.2	243.6
50°	38.0	69.0	113.3	146.7	174.6	193.2	204.1	211.9	217.3	219.6	221.1
52.5°	31.0	59.8	101.6	133.5	159.8	176.2	184.7	190.9	195.5	197.1	198.7
55°	26.3	52.0	91.6	122.6	146.7	160.6	166.9	172.3	174.6	176.2	176.9
57.5°	23.3	45.8	83.1	112.5	134.2	145.9	150.6	154.4	155.2	156.8	157.5
60°	20.2	39.6	73.7	101.6	121.1	131.2	133.5	136.6	136.6	137.3	138.2
62.5°	17.1	34.1	64.4	90.8	107.9	116.4	118.0	118.7	118.7	118.7	119.5
65°	14.0	28.7	54.3	78.4	93.9	99.3	100.2	100.9	99.3	99.3	100.2
67.5°	11.7	22.5	43.4	64.4	76.8	81.5	80.7	80.7	78.4	78.4	79.1
70°	8.5	17.1	32.6	48.9	58.2	61.3	59.8	59.8	57.5	57.5	58.2
72.5°	6.2	12.4	22.5	33.4	40.4	41.9	40.4	40.4	38.8	38.8	39.6
75°	4.7	7.8	14.8	21.8	25.6	26.3	25.6	24.9	24.1	24.1	24.9
77.5°	3.1	5.4	8.5	12.4	14.8	15.5	14.8	14.8	14.0	14.8	14.8
80°	1.6	3.1	4.7	7.0	7.8	8.5	8.5	8.5	7.8	7.8	8.5
82.5°	0.7	1.6	2.3	3.1	3.9	4.7	3.9	3.9	3.9	3.9	3.9
85°	0.0	0.7	0.7	1.6	1.6	2.3	1.6	1.6	1.6	1.6	1.6
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



TEST NUMBER: P135767

CATALOG NUMBER: LD6A10D010TE ERM6A10940 6LM121LI

CANDELA DISTRIBUTION (continued):

	165°	170°	175°	180°
0°	853.6	853.6	853.6	853.6
2.5°	839.7	835.7	830.3	842.0
5°	815.6	807.8	801.7	812.5
7.5°	777.5	766.7	758.2	769.0
10°	734.1	721.7	712.4	722.5
12.5°	696.1	683.7	675.9	683.7
15°	662.7	651.1	644.1	651.1
17.5°	630.1	620.0	613.9	621.6
20°	599.1	590.5	585.1	592.1
22.5°	570.4	562.6	558.0	564.9
25°	540.2	534.7	529.2	535.5
27.5°	506.7	500.6	497.5	501.3
30°	468.7	462.5	460.2	463.3
32.5°	423.7	417.5	415.2	417.5
35°	377.1	371.7	368.6	371.7
37.5°	337.5	333.0	330.6	333.0
40°	309.6	307.3	305.0	308.1
42.5°	287.9	285.6	284.0	286.3
45°	265.4	262.3	260.7	263.1
47.5°	242.9	239.8	238.2	239.8
50°	219.6	215.7	215.0	215.7
52.5°	196.4	193.2	191.7	192.4
55°	175.4	173.0	171.5	172.3
57.5°	156.8	153.7	152.8	153.7
60°	138.2	136.6	135.8	136.6
62.5°	119.5	118.7	119.5	119.5
65°	100.9	100.9	101.6	101.6
67.5°	80.7	82.3	83.1	83.1
70°	59.8	61.3	62.1	62.1
72.5°	40.4	41.9	42.7	43.4
75°	25.6	27.2	27.9	27.9
77.5°	15.5	16.3	16.3	17.1
80°	8.5	9.3	9.3	9.3
82.5°	4.7	4.7	4.7	5.4
85°	2.3	2.3	2.3	2.3
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)