

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: P135762

Luminaire Tested: **LD6A10D010TE ERM6A10835 6LM121LI**

Issue Date: 3/3/2020

Test Information

Test Method: LM-41-14
Report Number: P135762
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 ERM6A10835 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 3500K
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 1209.0 lumens
Efficiency: N/A
Efficacy: 86.4 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

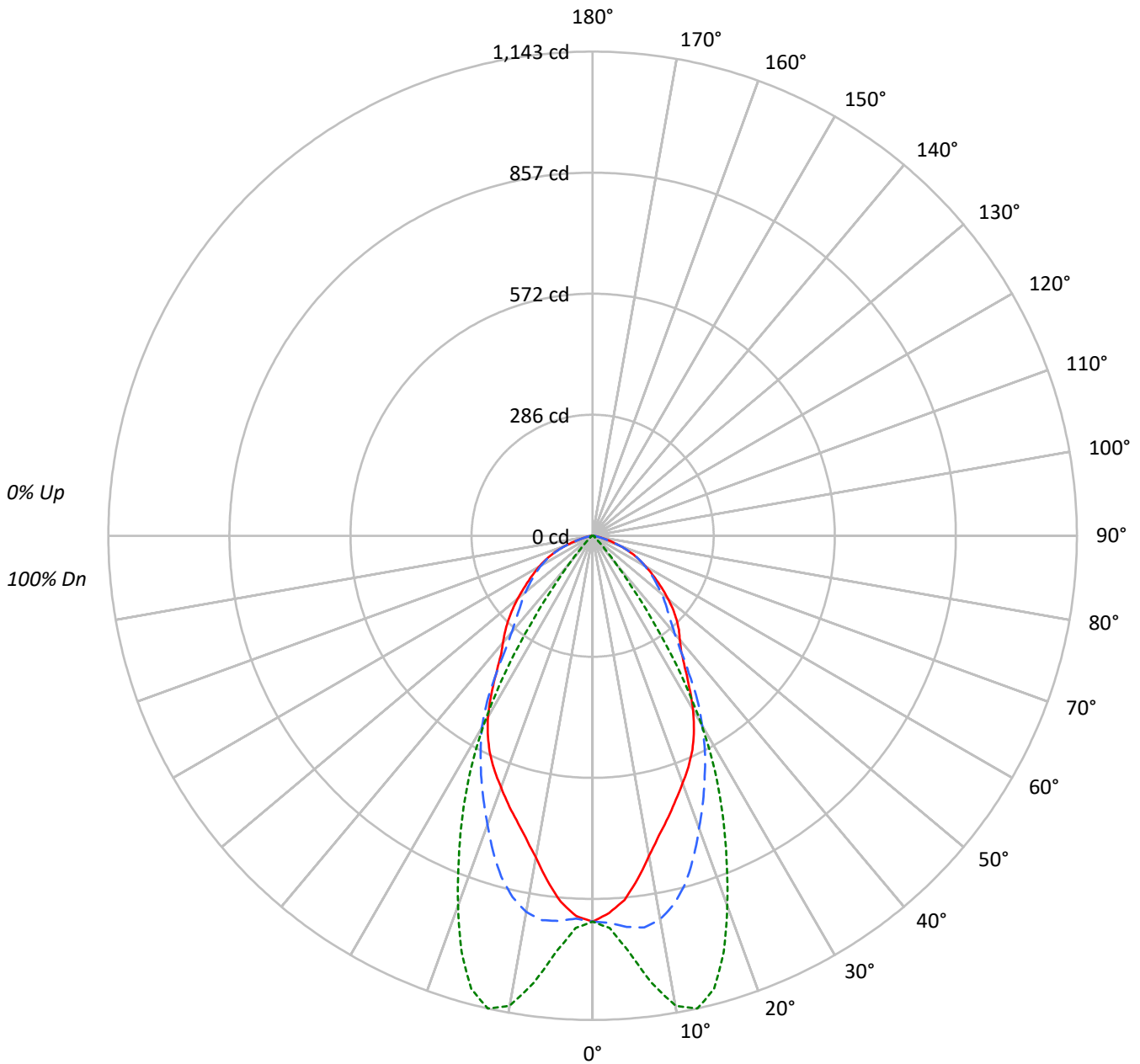
Input Watts (W): 14
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	59441	59441	59441
5°	56518	64547	56793
10°	50805	74621	51083
15°	46489	74789	46935
20°	43128	64519	43871
25°	40124	52290	41139
30°	35685	38684	37252
35°	30145	20453	31595
40°	27227	6839	28002
45°	25825	2371	25908
50°	23618	1005	23364
55°	21099	751	20917
60°	18802	757	19024
65°	16626	772	16749
70°	12799	629	12647
75°	7940	429	7512
80°	4058	301	3719
85°	1871	0	1871



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	88.4	7.3
10°-20°	241.3	20.0
20°-30°	290.4	24.0
30°-40°	225.7	18.7
40°-50°	151.0	12.5
50°-60°	113.7	9.4
60°-70°	72.9	6.0
70°-80°	23.4	1.9
80°-90°	2.2	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°	620.1	51.3
0°-40°	845.8	70.0
0°-60°	1110.5	91.9
0°-90°	1209.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1209.0	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	911	911	911	911	911	
5°	863	927	986	913	867	79
15°	688	848	1107	833	695	193
25°	557	626	726	623	572	254
35°	378	396	257	396	397	241
45°	280	250	26	244	281	215
55°	186	176	7	171	184	167
65°	108	108	5	106	108	105
75°	32	30	2	28	30	36
85°	2	2	0	2	2	4
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°	911.1	911.1	911.1	911.1	911.1	911.1	911.1	911.1	911.1	911.1	911.1
2.5°	891.2	898.6	896.1	907.7	899.5	898.6	904.4	907.7	908.6	914.4	914.4
5°	863.0	871.3	868.8	883.7	880.4	883.7	896.1	905.3	913.5	926.8	935.1
7.5°	816.6	826.6	828.2	843.1	844.8	853.9	873.8	892.0	909.4	932.6	952.5
10°	766.9	776.9	779.4	795.9	800.9	813.3	839.0	862.2	887.0	919.3	949.2
12.5°	723.9	733.8	737.1	753.7	759.5	773.6	800.9	826.6	854.7	890.3	926.0
15°	688.3	697.4	700.7	715.6	721.4	734.6	760.3	785.2	812.5	848.1	882.9
17.5°	653.5	662.6	665.1	678.3	682.5	694.1	717.2	738.8	762.0	793.4	824.9
20°	621.2	629.5	631.1	642.7	645.2	654.3	673.4	690.7	709.8	734.6	760.3
22.5°	590.5	598.8	599.6	609.6	610.4	617.9	633.6	646.8	660.1	680.0	698.2
25°	557.4	565.7	566.5	574.8	575.6	580.6	593.0	603.0	612.1	626.1	638.6
27.5°	517.6	525.9	528.4	534.2	535.0	538.4	549.1	555.7	564.9	574.0	578.9
30°	473.7	481.2	484.5	489.5	490.3	495.3	505.2	510.2	516.0	517.6	519.3
32.5°	424.9	433.2	436.5	440.6	443.1	448.1	457.2	459.7	461.3	460.5	451.4
35°	378.5	386.0	389.3	394.2	395.9	399.2	406.7	405.8	403.3	395.9	379.3
37.5°	343.7	349.5	352.8	356.1	357.0	358.6	362.8	359.5	352.8	340.4	318.9
40°	319.7	325.5	326.3	329.6	328.8	328.8	329.6	323.8	315.6	300.6	275.8
42.5°	301.5	306.4	306.4	309.8	307.3	305.6	305.6	299.0	288.2	272.5	247.6
45°	279.9	284.1	284.9	286.6	284.1	282.4	282.4	275.8	265.9	250.1	225.3
47.5°	257.6	261.7	261.7	264.2	261.7	260.1	260.1	254.3	245.2	231.1	207.9
50°	232.7	236.9	237.7	239.4	237.7	236.9	237.7	231.9	224.5	212.0	191.3
52.5°	208.7	212.9	212.9	214.5	212.9	212.9	213.7	209.5	202.9	193.0	174.8
55°	185.5	188.8	190.5	192.1	189.7	189.7	190.5	188.0	183.0	175.6	159.8
57.5°	164.0	167.3	168.1	169.8	168.1	169.0	169.8	167.3	164.8	159.0	146.6
60°	144.1	147.4	148.3	149.1	148.3	148.3	149.1	148.3	146.6	142.5	131.7
62.5°	125.9	128.4	129.2	130.9	129.2	128.4	130.0	129.2	128.4	125.9	118.4
65°	107.7	109.3	110.2	111.0	109.3	107.7	109.3	109.3	110.2	108.5	102.7
67.5°	87.8	89.4	89.4	89.4	87.0	86.1	87.8	87.8	89.4	88.6	84.5
70°	67.1	67.9	67.9	67.9	64.6	64.6	65.4	65.4	67.1	67.1	64.6
72.5°	48.0	47.2	47.2	46.4	45.6	43.9	43.9	44.7	46.4	46.4	44.7
75°	31.5	30.6	29.8	29.8	29.0	27.3	27.3	28.2	29.0	29.8	29.0
77.5°	19.0	18.2	18.2	17.4	17.4	16.6	16.6	16.6	17.4	17.4	17.4
80°	10.8	9.9	9.9	9.9	9.1	9.1	9.1	9.1	9.1	9.9	9.1
82.5°	5.8	5.0	5.0	5.0	5.0	5.0	4.1	5.0	5.0	5.0	5.0
85°	2.5	2.5	2.5	2.5	1.7	1.7	1.7	1.7	1.7	2.5	2.5
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°	911.1	911.1	911.1	911.1	911.1	911.1	911.1	911.1	911.1	911.1	911.1
2.5°	911.9	920.2	914.4	932.6	920.2	926.8	935.9	926.8	929.3	935.1	923.5
5°	940.0	955.0	956.6	981.5	971.5	983.1	995.5	985.6	987.3	991.4	976.5
7.5°	969.0	995.5	1008.0	1042.7	1040.3	1059.3	1074.2	1064.3	1064.3	1065.1	1042.7
10°	977.3	1016.2	1039.4	1082.5	1089.1	1116.5	1133.0	1126.4	1124.7	1122.3	1091.6
12.5°	959.1	1007.1	1036.9	1085.0	1098.2	1130.5	1145.4	1143.0	1140.5	1135.5	1099.9
15°	916.9	966.5	998.0	1045.2	1061.8	1094.9	1107.3	1107.3	1104.9	1099.9	1061.8
17.5°	854.7	901.1	930.1	971.5	988.1	1018.7	1027.0	1029.5	1027.0	1022.0	987.3
20°	784.3	823.3	846.5	880.4	893.7	920.2	925.1	929.3	927.6	923.5	892.8
22.5°	715.6	746.2	763.6	793.4	798.4	820.8	822.4	825.7	824.9	823.3	798.4
25°	652.6	673.4	683.3	705.7	707.3	723.9	723.0	726.4	725.5	725.5	706.5
27.5°	586.4	598.8	601.3	615.4	612.1	624.5	626.1	624.5	625.3	626.1	612.1
30°	520.1	522.6	515.2	516.8	507.7	515.2	507.7	513.5	513.5	516.0	507.7
32.5°	444.8	437.3	417.4	407.5	391.8	391.8	387.6	387.6	387.6	391.8	390.1
35°	364.4	346.2	315.6	294.0	271.7	265.9	265.0	256.8	258.4	264.2	268.3
37.5°	295.7	268.3	227.8	197.1	170.6	159.0	154.9	148.3	150.7	157.4	167.3
40°	246.8	213.7	166.5	130.9	104.4	91.1	84.5	80.3	82.8	91.1	103.5
42.5°	216.2	179.7	129.2	91.9	67.1	54.7	48.0	44.7	47.2	54.7	69.6
45°	193.8	155.7	104.4	67.9	45.6	34.0	28.2	25.7	27.3	34.0	46.4
47.5°	176.4	137.5	87.0	52.2	32.3	22.4	17.4	14.9	16.6	22.4	32.3
50°	160.7	122.6	73.7	41.4	24.8	16.6	11.6	9.9	11.6	15.7	24.0
52.5°	146.6	109.3	62.9	34.0	19.0	13.3	9.1	7.5	8.3	12.4	19.0
55°	134.2	99.4	55.5	29.0	16.6	11.6	8.3	6.6	8.3	10.8	16.6
57.5°	122.6	89.4	48.9	24.8	14.1	9.9	7.5	6.6	7.5	9.9	14.1
60°	111.0	79.5	43.1	21.5	12.4	9.1	6.6	5.8	6.6	8.3	12.4
62.5°	99.4	70.4	37.3	18.2	10.8	7.5	5.8	5.0	5.8	7.5	10.8
65°	86.1	59.6	31.5	15.7	9.1	6.6	5.0	5.0	5.0	6.6	9.1
67.5°	71.2	48.9	24.8	12.4	7.5	5.8	4.1	4.1	4.1	5.8	7.5
70°	54.7	36.4	19.0	9.9	5.8	4.1	3.3	3.3	3.3	4.1	5.8
72.5°	38.1	25.7	13.3	7.5	4.1	3.3	2.5	2.5	2.5	3.3	4.1
75°	24.0	16.6	9.1	5.0	3.3	2.5	1.7	1.7	1.7	2.5	3.3
77.5°	14.1	9.9	5.8	3.3	1.7	1.7	0.8	0.8	0.8	1.7	1.7
80°	7.5	5.8	3.3	1.7	0.8	0.8	0.8	0.8	0.8	0.8	0.8
82.5°	4.1	2.5	1.7	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8
85°	1.7	0.8	0.8	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°	911.1	911.1	911.1	911.1	911.1	911.1	911.1	911.1	911.1	911.1	911.1
2.5°	920.2	923.5	922.6	905.3	903.6	904.4	892.8	897.0	901.1	897.0	897.8
5°	964.9	964.1	954.1	929.3	919.3	912.7	893.7	890.3	887.9	878.8	875.4
7.5°	1023.7	1012.1	991.4	954.1	933.4	915.2	887.0	873.0	863.0	847.3	838.2
10°	1064.3	1041.1	1010.4	961.6	930.1	901.9	865.5	844.0	827.4	806.7	793.4
12.5°	1070.1	1037.8	1002.2	945.0	908.6	873.8	834.0	810.0	791.0	768.6	756.2
15°	1032.8	999.7	962.4	905.3	868.8	833.2	795.1	771.1	752.0	730.5	719.7
17.5°	962.4	931.8	898.6	845.6	814.2	781.8	747.9	727.2	710.6	694.1	683.3
20°	873.0	848.9	821.6	776.9	752.0	725.5	699.0	682.5	670.0	656.0	647.7
22.5°	784.3	766.1	746.2	710.6	692.4	673.4	652.6	641.1	631.9	621.2	615.4
25°	699.0	686.6	674.2	646.8	636.1	622.8	607.9	599.6	593.8	586.4	582.2
27.5°	610.4	606.3	603.0	585.6	581.4	572.3	562.4	557.4	553.3	548.3	545.0
30°	514.3	516.8	530.1	521.0	525.1	522.6	518.5	515.2	513.5	509.4	505.2
32.5°	405.8	423.2	442.3	444.8	457.2	463.0	462.2	463.0	463.8	460.5	457.2
35°	290.7	318.9	348.7	361.9	382.6	395.9	400.9	405.8	409.1	408.3	405.8
37.5°	193.8	231.9	267.5	290.7	318.0	336.3	347.0	355.3	360.3	361.9	361.9
40°	129.2	165.6	212.9	242.7	273.3	295.7	308.1	318.9	326.3	329.6	331.3
42.5°	91.1	130.0	178.1	212.0	243.5	267.5	281.6	293.2	300.6	304.8	306.4
45°	67.1	104.4	154.1	188.8	221.1	244.3	258.4	269.2	276.6	280.8	283.3
47.5°	51.4	87.8	135.8	171.4	203.7	225.3	238.5	248.5	255.1	258.4	260.1
50°	40.6	73.7	120.9	156.5	186.4	206.2	217.8	226.1	231.9	234.4	236.0
52.5°	33.1	63.8	108.5	142.5	170.6	188.0	197.1	203.7	208.7	210.4	212.0
55°	28.2	55.5	97.7	130.9	156.5	171.4	178.1	183.9	186.4	188.0	188.8
57.5°	24.8	48.9	88.6	120.1	143.3	155.7	160.7	164.8	165.6	167.3	168.1
60°	21.5	42.2	78.7	108.5	129.2	140.0	142.5	145.8	145.8	146.6	147.4
62.5°	18.2	36.4	68.7	96.9	115.1	124.2	125.9	126.7	126.7	126.7	127.5
65°	14.9	30.6	58.0	83.7	100.2	106.0	106.8	107.7	106.0	106.0	106.8
67.5°	12.4	24.0	46.4	68.7	82.0	87.0	86.1	86.1	83.7	83.7	84.5
70°	9.1	18.2	34.8	52.2	62.1	65.4	63.8	63.8	61.3	61.3	62.1
72.5°	6.6	13.3	24.0	35.6	43.1	44.7	43.1	43.1	41.4	41.4	42.2
75°	5.0	8.3	15.7	23.2	27.3	28.2	27.3	26.5	25.7	25.7	26.5
77.5°	3.3	5.8	9.1	13.3	15.7	16.6	15.7	15.7	14.9	15.7	15.7
80°	1.7	3.3	5.0	7.5	8.3	9.1	9.1	9.1	8.3	8.3	9.1
82.5°	0.8	1.7	2.5	3.3	4.1	5.0	4.1	4.1	4.1	4.1	4.1
85°	0.0	0.8	0.8	1.7	1.7	2.5	1.7	1.7	1.7	1.7	1.7
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: P135762

CATALOG NUMBER: LD6A10D010TE ERM6A10835 6LM121LI

CANDELA DISTRIBUTION (continued):

	165°	170°	175°	180°
0°	911.1	911.1	911.1	911.1
2.5°	896.1	892.0	886.2	898.6
5°	870.5	862.2	855.6	867.2
7.5°	829.9	818.3	809.2	820.8
10°	783.5	770.3	760.3	771.1
12.5°	742.9	729.7	721.4	729.7
15°	707.3	694.9	687.4	694.9
17.5°	672.5	661.8	655.1	663.4
20°	639.4	630.3	624.5	631.9
22.5°	608.7	600.5	595.5	603.0
25°	576.4	570.7	564.9	571.5
27.5°	540.8	534.2	530.9	535.0
30°	500.3	493.6	491.1	494.5
32.5°	452.2	445.6	443.1	445.6
35°	402.5	396.7	393.4	396.7
37.5°	360.3	355.3	352.8	355.3
40°	330.5	328.0	325.5	328.8
42.5°	307.3	304.8	303.1	305.6
45°	283.3	279.9	278.3	280.8
47.5°	259.2	255.9	254.3	255.9
50°	234.4	230.2	229.4	230.2
52.5°	209.5	206.2	204.6	205.4
55°	187.2	184.7	183.0	183.9
57.5°	167.3	164.0	163.2	164.0
60°	147.4	145.8	144.9	145.8
62.5°	127.5	126.7	127.5	127.5
65°	107.7	107.7	108.5	108.5
67.5°	86.1	87.8	88.6	88.6
70°	63.8	65.4	66.3	66.3
72.5°	43.1	44.7	45.6	46.4
75°	27.3	29.0	29.8	29.8
77.5°	16.6	17.4	17.4	18.2
80°	9.1	9.9	9.9	9.9
82.5°	5.0	5.0	5.0	5.8
85°	2.5	2.5	2.5	2.5
87.5°	0.0	0.8	0.8	0.8
90°	0.0	0.0	0.0	0.0



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













(END OF REPORT)