

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: P135912

Luminaire Tested: **LD6A15D010TE ERM6A15827 6LM121H**

Issue Date: 3/3/2020

Test Information

Test Method: LM-41-14
Report Number: P135912
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P23373)
Test Lab: INNOVATION CENTER P2
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: io LED
Catalog Number: LD6A15D010TE ERM6A15827 6LM121H
Description: PORTFOLIO 6 INCH 50 DEGREE CUTOFF RECESSED DOUBLE WALL WASH LUMINAIRE
SEMI-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: 1443.0 lumens
Efficiency: N/A
Efficacy: 63.8 lumens/watt
Spacing Criteria (0/90/45): 0.96 / 1.06 / 1.01
Luminous Opening: Circular (Dia: 0.46' x H: 0')
CIE Type: Direct

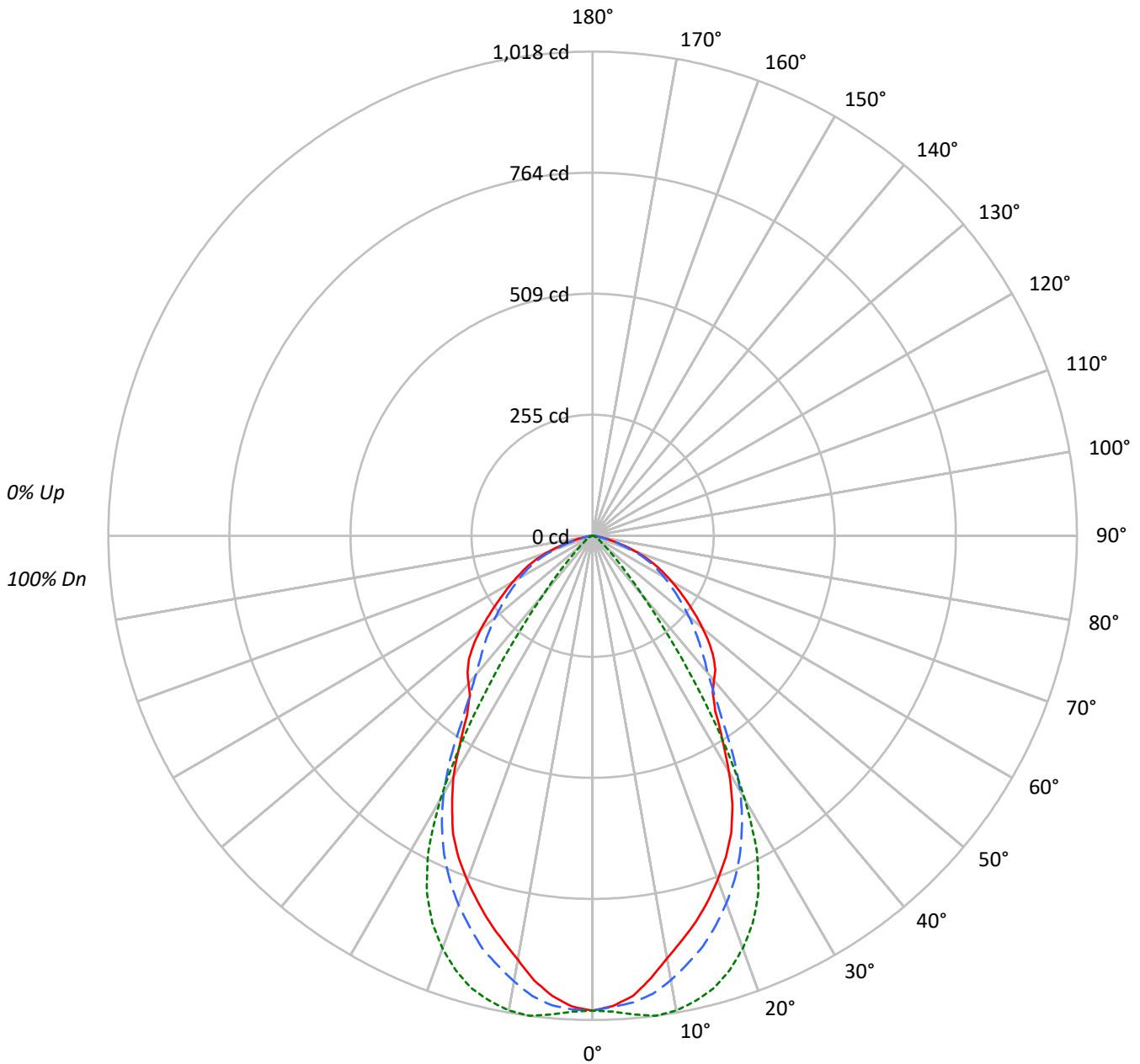
Input Watts (W): 22.6
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Luminous Intensity Polar Plot





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COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:

RF	20				20				20				20				20				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				100
1	111	108	105	102	109	106	103	100	101	99	97	98	96	94	94	93	91	89				89
2	104	97	92	87	101	95	90	86	92	88	84	89	85	82	86	83	81	79				79
3	96	88	81	76	94	86	80	75	84	78	74	81	77	73	79	75	72	70				70
4	90	80	73	67	88	79	72	67	76	71	66	74	69	65	72	68	64	62				62
5	84	73	66	60	82	72	65	60	70	64	59	68	63	59	67	62	58	56				56
6	78	67	60	54	77	66	59	54	65	58	54	63	57	53	62	57	53	51				51
7	74	62	55	49	72	61	54	49	60	53	49	59	53	49	57	52	48	47				47
8	69	58	50	45	68	57	50	45	56	49	45	55	49	45	53	48	44	43				43
9	65	54	46	42	64	53	46	41	52	46	41	51	45	41	50	45	41	39				39
10	62	50	43	38	61	50	43	38	49	43	38	48	42	38	47	42	38	36				36

AVERAGE LUMINANCE (cd/sqm):

	0°	90°	180°
0°	65136	65136	65136
5°	63604	66171	63604
10°	59748	67141	59947
15°	56735	66515	56735
20°	53397	64082	53501
25°	49612	59380	49936
30°	43174	48281	44078
35°	35792	29190	36636
40°	33777	13618	34552
45°	33114	6403	33953
50°	30611	3370	31230
55°	27617	2229	27788
60°	24987	1775	25183
65°	22353	1389	23048
70°	18407	1145	18980
75°	12175	756	12175
80°	6800	564	6800
85°	4491	0	3368



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	93.1	6.5
10°-20°	252.6	17.5
20°-30°	337.7	23.4
30°-40°	279.2	19.4
40°-50°	200.4	13.9
50°-60°	147.3	10.2
60°-70°	95.1	6.6
70°-80°	33.7	2.3
80°-90°	3.9	0.3
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°	683.5	47.4
0°-40°	962.7	66.7
0°-60°	1310.3	90.8
0°-90°	1443.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1443.0	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	998	998	998	998	998	
5°	971	985	1010	991	971	90
15°	840	894	985	897	840	236
25°	689	734	825	739	694	313
35°	449	477	366	481	460	289
45°	359	317	69	321	368	274
55°	243	216	20	219	244	218
65°	145	134	9	136	149	143
75°	48	39	3	39	48	55
85°	6	3	0	3	4	7
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°	998.4	998.4	998.4	998.4	998.4	998.4	998.4	998.4	998.4	998.4	998.4
2.5°	989.3	981.8	987.8	981.8	983.3	989.3	990.8	993.8	995.4	990.8	990.8
5°	971.2	963.7	971.2	965.2	968.2	975.8	977.3	983.3	986.3	984.8	987.8
7.5°	938.0	932.0	939.6	935.0	939.6	950.1	954.6	962.2	968.2	971.2	975.8
10°	901.9	895.8	903.4	898.8	906.4	918.4	923.0	932.0	941.1	948.6	956.1
12.5°	870.2	864.2	868.7	867.2	874.7	885.3	892.8	903.4	913.9	921.5	932.0
15°	840.0	834.0	840.0	837.0	843.0	855.1	862.6	873.2	885.3	894.3	906.4
17.5°	805.3	799.3	803.8	802.3	808.4	818.9	826.4	837.0	849.1	859.6	871.7
20°	769.1	763.1	767.6	764.6	770.6	782.7	788.7	800.8	811.4	821.9	832.5
22.5°	731.4	725.4	731.4	726.9	736.0	743.5	749.5	761.6	770.6	781.2	790.3
25°	689.2	683.2	687.7	684.7	690.7	699.8	704.3	716.4	723.9	734.5	743.5
27.5°	636.4	628.9	637.9	631.9	639.4	647.0	651.5	662.1	671.1	680.2	687.7
30°	573.1	567.1	576.1	571.6	580.6	586.7	592.7	603.2	610.8	621.3	622.9
32.5°	506.7	503.7	511.3	508.2	517.3	523.3	527.8	538.4	544.4	550.5	545.9
35°	449.4	446.4	453.9	452.4	460.0	464.5	469.0	475.1	475.1	476.6	464.5
37.5°	414.7	413.2	419.3	417.7	423.8	428.3	428.3	429.8	426.8	419.3	401.2
40°	396.6	395.1	399.7	398.1	402.7	404.2	402.7	399.7	390.6	375.5	351.4
42.5°	381.6	378.5	381.6	380.0	383.1	384.6	380.0	375.5	363.5	345.4	316.7
45°	358.9	355.9	360.4	357.4	360.4	360.4	355.9	349.9	336.3	316.7	286.5
47.5°	331.8	328.8	333.3	330.3	333.3	333.3	328.8	322.7	309.2	289.6	259.4
50°	301.6	298.6	301.6	300.1	303.1	304.6	298.6	294.1	282.0	263.9	233.8
52.5°	271.5	268.4	271.5	271.5	273.0	273.0	268.4	265.4	254.9	238.3	211.1
55°	242.8	239.8	244.3	242.8	244.3	244.3	239.8	236.8	229.2	215.7	190.0
57.5°	215.7	214.2	217.2	215.7	215.7	215.7	212.6	211.1	205.1	193.0	171.9
60°	191.5	188.5	190.0	190.0	190.0	191.5	188.5	187.0	182.5	173.4	153.8
62.5°	167.4	165.9	167.4	165.9	165.9	167.4	165.9	164.4	161.4	153.8	137.2
65°	144.8	141.8	144.8	143.3	143.3	143.3	141.8	141.8	138.7	134.2	119.1
67.5°	120.6	119.1	120.6	119.1	117.6	117.6	116.1	116.1	114.6	111.6	98.0
70°	96.5	93.5	95.0	92.0	93.5	90.5	90.5	89.0	87.5	86.0	75.4
72.5°	70.9	69.4	69.4	66.4	66.4	64.8	63.3	63.3	61.8	61.8	54.3
75°	48.3	48.3	46.8	43.7	45.2	42.2	42.2	42.2	40.7	39.2	34.7
77.5°	31.7	30.2	30.2	28.7	28.7	25.6	27.1	25.6	25.6	24.1	21.1
80°	18.1	18.1	18.1	16.6	16.6	15.1	15.1	15.1	13.6	13.6	12.1
82.5°	10.6	10.6	10.6	9.0	9.0	9.0	9.0	7.5	7.5	7.5	6.0
85°	6.0	4.5	4.5	4.5	4.5	4.5	4.5	3.0	3.0	3.0	3.0
87.5°	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	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°	998.4	998.4	998.4	998.4	998.4	998.4	998.4	998.4	998.4	998.4	998.4
2.5°	996.9	995.4	993.8	999.9	1001.4	996.9	996.9	1001.4	1004.4	996.9	995.4
5°	995.4	996.9	996.9	1004.4	1008.9	1005.9	1005.9	1010.4	1013.5	1004.4	1001.4
7.5°	987.8	992.3	995.4	1005.9	1013.5	1011.9	1013.5	1018.0	1019.5	1010.4	1005.9
10°	971.2	977.3	983.3	996.9	1005.9	1007.4	1008.9	1013.5	1016.5	1004.4	998.4
12.5°	948.6	957.7	966.7	981.8	992.3	993.8	998.4	1001.4	1002.9	992.3	984.8
15°	923.0	935.0	944.1	960.7	972.7	975.8	980.3	984.8	984.8	972.7	965.2
17.5°	891.3	901.9	913.9	930.5	944.1	947.1	953.1	957.7	957.7	945.6	935.0
20°	852.1	864.2	874.7	892.8	907.9	912.4	918.4	923.0	923.0	912.4	898.8
22.5°	811.4	823.4	834.0	850.6	865.7	870.2	874.7	880.7	879.2	870.2	858.1
25°	763.1	773.7	781.2	797.8	809.9	814.4	820.4	824.9	823.4	814.4	803.8
27.5°	704.3	711.8	713.3	723.9	734.5	739.0	743.5	748.0	746.5	739.0	729.9
30°	636.4	634.9	627.4	627.4	631.9	634.9	637.9	640.9	639.4	634.9	628.9
32.5°	550.5	539.9	520.3	509.7	505.2	505.2	505.2	508.2	506.7	505.2	505.2
35°	458.5	435.8	405.7	383.1	371.0	366.5	363.5	366.5	365.0	366.5	372.5
37.5°	383.1	349.9	309.2	279.0	259.4	250.3	244.3	245.8	245.8	250.3	260.9
40°	327.3	285.0	239.8	202.1	179.5	167.4	159.9	159.9	161.4	167.4	181.0
42.5°	285.0	238.3	188.5	152.3	125.2	113.1	105.6	104.1	105.6	113.1	126.7
45°	251.9	202.1	152.3	113.1	90.5	76.9	70.9	69.4	70.9	78.4	90.5
47.5°	223.2	173.4	126.7	87.5	64.8	54.3	48.3	46.8	49.8	55.8	66.4
50°	199.1	150.8	104.1	69.4	49.8	39.2	34.7	33.2	34.7	40.7	49.8
52.5°	176.4	131.2	87.5	54.3	37.7	30.2	25.6	24.1	25.6	30.2	39.2
55°	158.4	116.1	75.4	45.2	30.2	24.1	21.1	19.6	21.1	24.1	31.7
57.5°	141.8	102.6	64.8	37.7	25.6	19.6	16.6	16.6	16.6	19.6	25.6
60°	126.7	90.5	55.8	31.7	21.1	16.6	13.6	13.6	13.6	16.6	21.1
62.5°	113.1	79.9	48.3	27.1	18.1	13.6	12.1	12.1	12.1	13.6	18.1
65°	96.5	67.9	40.7	22.6	15.1	12.1	10.6	9.0	10.6	12.1	15.1
67.5°	79.9	55.8	33.2	18.1	12.1	9.0	7.5	7.5	7.5	9.0	12.1
70°	61.8	43.7	25.6	13.6	9.0	7.5	6.0	6.0	6.0	7.5	9.0
72.5°	42.2	30.2	18.1	10.6	7.5	6.0	4.5	4.5	4.5	6.0	7.5
75°	27.1	19.6	12.1	7.5	4.5	4.5	3.0	3.0	3.0	4.5	4.5
77.5°	16.6	12.1	7.5	4.5	3.0	3.0	3.0	3.0	3.0	3.0	3.0
80°	9.0	7.5	4.5	3.0	3.0	1.5	1.5	1.5	1.5	1.5	1.5
82.5°	4.5	4.5	3.0	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5
85°	1.5	1.5	1.5	1.5	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°	998.4	998.4	998.4	998.4	998.4	998.4	998.4	998.4	998.4	998.4	998.4
2.5°	995.4	998.4	999.9	993.8	995.4	996.9	987.8	989.3	984.8	993.8	989.3
5°	999.9	1001.4	1002.9	993.8	992.3	990.8	980.3	978.8	972.7	980.3	975.8
7.5°	1001.4	998.4	998.4	984.8	980.3	975.8	962.2	957.7	950.1	953.1	947.1
10°	993.8	987.8	983.3	966.7	959.2	951.6	935.0	929.0	918.4	920.0	912.4
12.5°	977.3	969.7	962.2	944.1	935.0	924.5	907.9	898.8	888.3	888.3	879.2
15°	956.1	947.1	938.0	920.0	907.9	897.3	877.7	868.7	858.1	856.6	849.1
17.5°	926.0	915.4	906.4	885.3	873.2	861.1	843.0	832.5	821.9	821.9	812.9
20°	889.8	877.7	867.2	847.6	835.5	824.9	803.8	794.8	785.7	784.2	776.7
22.5°	847.6	835.5	826.4	808.4	794.8	784.2	766.1	758.6	749.5	748.0	739.0
25°	794.8	784.2	775.2	760.1	748.0	739.0	722.4	713.3	707.3	707.3	699.8
27.5°	723.9	714.8	713.3	701.3	692.2	686.2	672.6	666.6	659.0	659.0	650.0
30°	628.9	630.4	636.4	633.4	630.4	627.4	615.3	613.8	604.8	603.2	592.7
32.5°	512.8	523.3	539.9	549.0	553.5	556.5	553.5	550.5	542.9	541.4	529.3
35°	389.1	410.2	437.4	455.5	470.5	481.1	485.6	485.6	482.6	481.1	470.5
37.5°	282.0	313.7	349.9	380.0	404.2	423.8	432.8	438.9	438.9	438.9	434.3
40°	206.6	244.3	286.5	325.8	355.9	381.6	395.1	405.7	408.7	413.2	410.2
42.5°	153.8	194.5	239.8	285.0	319.7	348.4	366.5	378.5	386.1	390.6	390.6
45°	117.6	158.4	205.1	253.4	289.6	321.2	339.3	352.9	360.4	366.5	366.5
47.5°	90.5	129.7	176.4	224.7	262.4	294.1	312.2	324.2	331.8	337.8	337.8
50°	70.9	107.1	152.3	199.1	236.8	266.9	283.5	295.6	301.6	306.1	307.7
52.5°	57.3	90.5	134.2	179.5	214.2	241.3	254.9	265.4	271.5	274.5	276.0
55°	46.8	78.4	119.1	159.9	193.0	218.7	230.7	238.3	242.8	245.8	245.8
57.5°	39.2	67.9	105.6	144.8	176.4	196.1	206.6	212.6	215.7	218.7	218.7
60°	33.2	58.8	93.5	129.7	158.4	176.4	184.0	188.5	191.5	193.0	193.0
62.5°	28.7	49.8	81.4	114.6	140.3	156.8	162.9	165.9	167.4	167.4	168.9
65°	24.1	42.2	69.4	99.5	120.6	135.7	140.3	141.8	141.8	143.3	144.8
67.5°	18.1	33.2	55.8	81.4	99.5	111.6	116.1	116.1	116.1	116.1	117.6
70°	15.1	25.6	42.2	61.8	76.9	86.0	89.0	89.0	89.0	89.0	90.5
72.5°	10.6	18.1	30.2	43.7	55.8	61.8	61.8	63.3	61.8	61.8	64.8
75°	7.5	12.1	19.6	28.7	34.7	39.2	40.7	40.7	40.7	40.7	42.2
77.5°	4.5	7.5	12.1	16.6	22.6	24.1	25.6	25.6	25.6	25.6	27.1
80°	3.0	4.5	7.5	10.6	12.1	13.6	15.1	15.1	15.1	15.1	15.1
82.5°	1.5	3.0	4.5	4.5	6.0	7.5	7.5	7.5	7.5	7.5	9.0
85°	0.0	1.5	1.5	3.0	3.0	3.0	3.0	3.0	3.0	3.0	4.5
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



TEST NUMBER: P135912

CATALOG NUMBER: LD6A15D010TE ERM6A15827 6LM121H

CANDELA DISTRIBUTION (continued):

	165°	170°	175°	180°
0°	998.4	998.4	998.4	998.4
2.5°	980.3	990.8	983.3	990.8
5°	965.2	974.2	965.2	971.2
7.5°	935.0	942.6	933.5	942.6
10°	898.8	906.4	897.3	904.9
12.5°	865.7	871.7	862.6	871.7
15°	835.5	841.5	832.5	840.0
17.5°	800.8	805.3	797.8	805.3
20°	764.6	769.1	763.1	770.6
22.5°	728.4	734.5	726.9	734.5
25°	687.7	692.2	684.7	693.7
27.5°	639.4	642.5	634.9	639.4
30°	580.6	582.1	576.1	585.1
32.5°	518.8	518.8	509.7	518.8
35°	461.5	460.0	453.9	460.0
37.5°	425.3	425.3	420.8	423.8
40°	404.2	405.7	399.7	405.7
42.5°	386.1	389.1	384.6	389.1
45°	363.5	366.5	361.9	368.0
47.5°	334.8	337.8	334.8	339.3
50°	303.1	306.1	303.1	307.7
52.5°	271.5	274.5	271.5	274.5
55°	242.8	244.3	241.3	244.3
57.5°	215.7	217.2	214.2	217.2
60°	190.0	193.0	190.0	193.0
62.5°	167.4	168.9	168.9	170.4
65°	143.3	149.3	147.8	149.3
67.5°	119.1	123.7	123.7	125.2
70°	92.0	95.0	98.0	99.5
72.5°	64.8	69.4	70.9	72.4
75°	42.2	46.8	46.8	48.3
77.5°	27.1	30.2	30.2	30.2
80°	16.6	18.1	16.6	18.1
82.5°	9.0	9.0	9.0	10.6
85°	4.5	4.5	4.5	4.5
87.5°	1.5	1.5	1.5	1.5
90°	0.0	0.0	0.0	0.0



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













(END OF REPORT)