

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: P135763

Luminaire Tested: **LD6A10D010TE ERM6A10840 6LM121LI**

Issue Date: 3/3/2020

Test Information

Test Method: LM-41-14
Report Number: P135763
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 ERM6A10840 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: 1234.0 lumens
Efficiency: N/A
Efficacy: 88.1 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

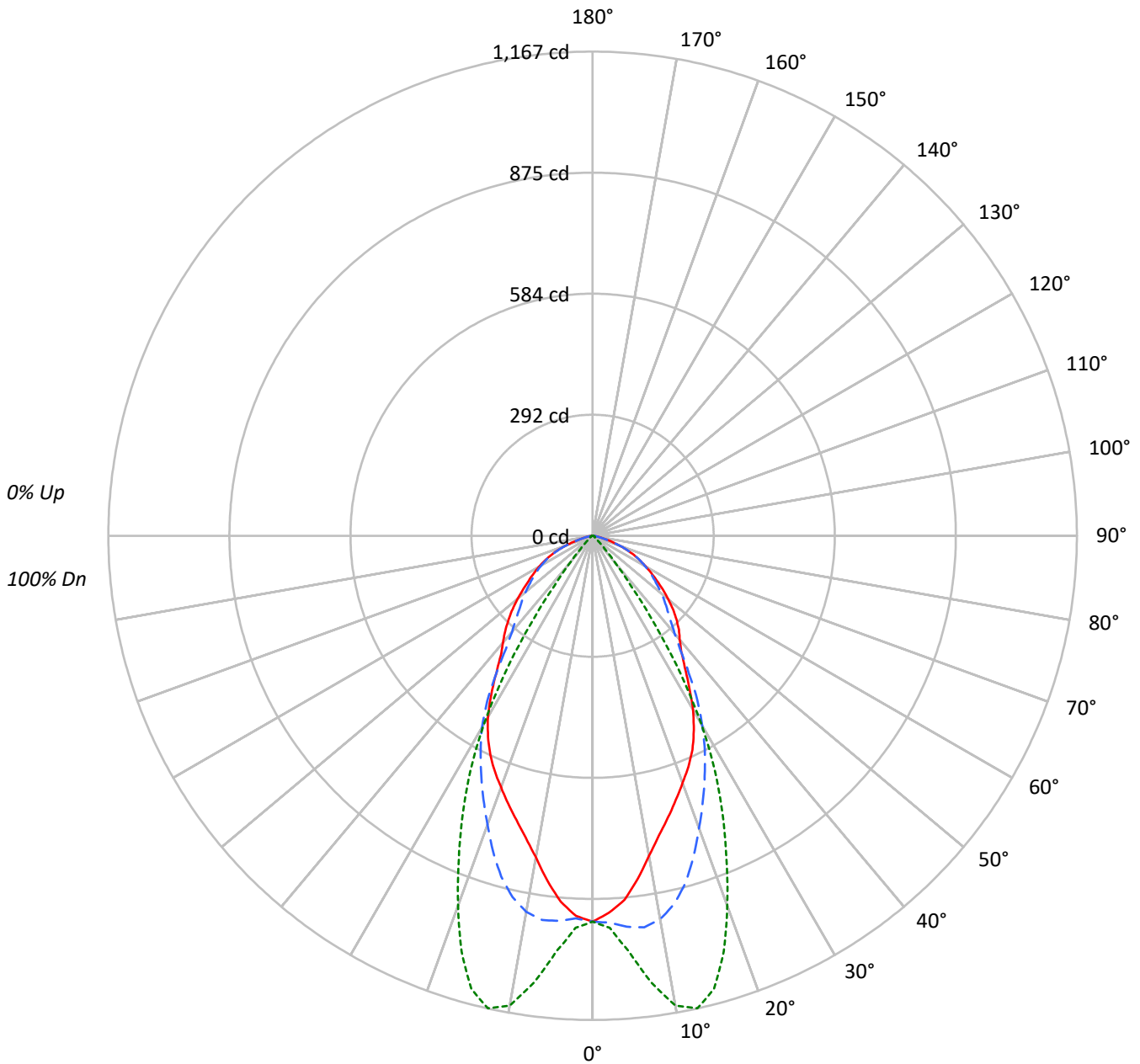
Input Watts (W): 14
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	60667	60667	60667
5°	57690	65883	57965
10°	51858	76164	52136
15°	47448	76336	47908
20°	44017	65852	44781
25°	40952	53370	41989
30°	36424	39482	38021
35°	30767	20875	32248
40°	27790	6984	28582
45°	26360	2417	26443
50°	24105	1025	23852
55°	21543	773	21350
60°	19194	770	19416
65°	16966	787	17089
70°	13066	649	12895
75°	8091	429	7663
80°	4133	301	3795
85°	1871	0	1871



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	90.2	7.3
10°-20°	246.3	20.0
20°-30°	296.4	24.0
30°-40°	230.4	18.7
40°-50°	154.2	12.5
50°-60°	116.0	9.4
60°-70°	74.5	6.0
70°-80°	23.8	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°	632.9	51.3
0°-40°	863.3	70.0
0°-60°	1133.5	91.9
0°-90°	1234.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1234.0	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	930	930	930	930	930	
5°	881	946	1006	932	885	81
15°	702	866	1130	850	709	197
25°	569	639	741	636	583	259
35°	386	404	262	404	405	245
45°	286	255	26	249	287	219
55°	189	179	7	175	188	170
65°	110	111	5	108	111	108
75°	32	30	2	29	30	37
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°	929.9	929.9	929.9	929.9	929.9	929.9	929.9	929.9	929.9	929.9	929.9
2.5°	909.6	917.2	914.7	926.5	918.1	917.2	923.1	926.5	927.4	933.3	933.3
5°	880.9	889.3	886.8	902.0	898.6	902.0	914.7	924.0	932.4	946.0	954.4
7.5°	833.5	843.7	845.4	860.6	862.3	871.6	891.9	910.4	928.2	951.9	972.2
10°	782.8	792.9	795.5	812.4	817.5	830.1	856.3	880.0	905.4	938.3	968.8
12.5°	738.8	749.0	752.4	769.3	775.2	789.6	817.5	843.7	872.4	908.8	945.1
15°	702.5	711.8	715.2	730.4	736.3	749.8	776.0	801.4	829.3	865.6	901.2
17.5°	667.0	676.3	678.8	692.3	696.6	708.4	732.1	754.1	777.7	809.9	842.0
20°	634.0	642.5	644.2	656.0	658.5	667.8	687.3	705.0	724.5	749.8	776.0
22.5°	602.7	611.2	612.0	622.2	623.0	630.6	646.7	660.2	673.7	694.0	712.6
25°	568.9	577.4	578.2	586.7	587.5	592.6	605.3	615.4	624.7	639.1	651.8
27.5°	528.3	536.8	539.3	545.3	546.1	549.5	560.5	567.2	576.5	585.8	590.9
30°	483.5	491.2	494.5	499.6	500.5	505.5	515.7	520.7	526.7	528.3	530.0
32.5°	433.7	442.1	445.5	449.7	452.3	457.3	466.6	469.2	470.9	470.0	460.7
35°	386.3	393.9	397.3	402.4	404.1	407.5	415.1	414.2	411.7	404.1	387.2
37.5°	350.8	356.7	360.1	363.5	364.3	366.0	370.3	366.9	360.1	347.4	325.5
40°	326.3	332.2	333.1	336.5	335.6	335.6	336.5	330.5	322.1	306.9	281.5
42.5°	307.7	312.8	312.8	316.2	313.6	311.9	311.9	305.2	294.2	278.1	252.8
45°	285.7	290.0	290.8	292.5	290.0	288.3	288.3	281.5	271.4	255.3	229.9
47.5°	262.9	267.1	267.1	269.7	267.1	265.4	265.4	259.5	250.2	235.9	212.2
50°	237.5	241.8	242.6	244.3	242.6	241.8	242.6	236.7	229.1	216.4	195.3
52.5°	213.0	217.3	217.3	218.9	217.3	217.3	218.1	213.9	207.1	197.0	178.4
55°	189.4	192.7	194.4	196.1	193.6	193.6	194.4	191.9	186.8	179.2	163.2
57.5°	167.4	170.8	171.6	173.3	171.6	172.5	173.3	170.8	168.2	162.3	149.6
60°	147.1	150.5	151.3	152.2	151.3	151.3	152.2	151.3	149.6	145.4	134.4
62.5°	128.5	131.0	131.9	133.6	131.9	131.0	132.7	131.9	131.0	128.5	120.9
65°	109.9	111.6	112.4	113.3	111.6	109.9	111.6	111.6	112.4	110.7	104.8
67.5°	89.6	91.3	91.3	91.3	88.8	87.9	89.6	89.6	91.3	90.5	86.2
70°	68.5	69.3	69.3	69.3	65.9	65.9	66.8	66.8	68.5	68.5	65.9
72.5°	49.0	48.2	48.2	47.3	46.5	44.8	44.8	45.6	47.3	47.3	45.6
75°	32.1	31.3	30.4	30.4	29.6	27.9	27.9	28.7	29.6	30.4	29.6
77.5°	19.4	18.6	18.6	17.8	17.8	16.9	16.9	16.9	17.8	17.8	17.8
80°	11.0	10.1	10.1	10.1	9.3	9.3	9.3	9.3	9.3	10.1	9.3
82.5°	5.9	5.1	5.1	5.1	5.1	5.1	4.2	5.1	5.1	5.1	5.1
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°	929.9	929.9	929.9	929.9	929.9	929.9	929.9	929.9	929.9	929.9	929.9
2.5°	930.7	939.2	933.3	951.9	939.2	946.0	955.3	946.0	948.5	954.4	942.6
5°	959.5	974.7	976.4	1001.7	991.6	1003.4	1016.1	1006.0	1007.7	1011.9	996.7
7.5°	989.1	1016.1	1028.8	1064.3	1061.8	1081.2	1096.4	1086.3	1086.3	1087.1	1064.3
10°	997.5	1037.3	1060.9	1104.9	1111.6	1139.5	1156.4	1149.7	1148.0	1145.5	1114.2
12.5°	978.9	1028.0	1058.4	1107.4	1120.9	1153.9	1169.1	1166.6	1164.1	1159.0	1122.6
15°	935.8	986.5	1018.7	1066.8	1083.7	1117.6	1130.2	1130.2	1127.7	1122.6	1083.7
17.5°	872.4	919.7	949.3	991.6	1008.5	1039.8	1048.2	1050.8	1048.2	1043.2	1007.7
20°	800.6	840.3	864.0	898.6	912.1	939.2	944.3	948.5	946.8	942.6	911.3
22.5°	730.4	761.7	779.4	809.9	814.9	837.7	839.4	842.8	842.0	840.3	814.9
25°	666.1	687.3	697.4	720.2	721.9	738.8	738.0	741.4	740.5	740.5	721.1
27.5°	598.5	611.2	613.7	628.1	624.7	637.4	639.1	637.4	638.2	639.1	624.7
30°	530.9	533.4	525.8	527.5	518.2	525.8	518.2	524.1	524.1	526.7	518.2
32.5°	454.0	446.3	426.1	415.9	399.9	399.9	395.6	395.6	395.6	399.9	398.2
35°	372.0	353.4	322.1	300.1	277.3	271.4	270.5	262.1	263.8	269.7	273.9
37.5°	301.8	273.9	232.5	201.2	174.1	162.3	158.1	151.3	153.9	160.6	170.8
40°	251.9	218.1	169.9	133.6	106.5	93.0	86.2	82.0	84.5	93.0	105.7
42.5°	220.6	183.4	131.9	93.8	68.5	55.8	49.0	45.6	48.2	55.8	71.0
45°	197.8	158.9	106.5	69.3	46.5	34.7	28.7	26.2	27.9	34.7	47.3
47.5°	180.1	140.3	88.8	53.3	33.0	22.8	17.8	15.2	16.9	22.8	33.0
50°	164.0	125.1	75.2	42.3	25.4	16.9	11.8	10.1	11.8	16.1	24.5
52.5°	149.6	111.6	64.2	34.7	19.4	13.5	9.3	7.6	8.5	12.7	19.4
55°	136.9	101.4	56.6	29.6	16.9	11.8	8.5	6.8	8.5	11.0	16.9
57.5°	125.1	91.3	49.9	25.4	14.4	10.1	7.6	6.8	7.6	10.1	14.4
60°	113.3	81.2	44.0	22.0	12.7	9.3	6.8	5.9	6.8	8.5	12.7
62.5°	101.4	71.9	38.0	18.6	11.0	7.6	5.9	5.1	5.9	7.6	11.0
65°	87.9	60.9	32.1	16.1	9.3	6.8	5.1	5.1	5.1	6.8	9.3
67.5°	72.7	49.9	25.4	12.7	7.6	5.9	4.2	4.2	4.2	5.9	7.6
70°	55.8	37.2	19.4	10.1	5.9	4.2	3.4	3.4	3.4	4.2	5.9
72.5°	38.9	26.2	13.5	7.6	4.2	3.4	2.5	2.5	2.5	3.4	4.2
75°	24.5	16.9	9.3	5.1	3.4	2.5	1.7	1.7	1.7	2.5	3.4
77.5°	14.4	10.1	5.9	3.4	1.7	1.7	0.8	0.8	0.8	1.7	1.7
80°	7.6	5.9	3.4	1.7	0.8	0.8	0.8	0.8	0.8	0.8	0.8
82.5°	4.2	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°	929.9	929.9	929.9	929.9	929.9	929.9	929.9	929.9	929.9	929.9	929.9
2.5°	939.2	942.6	941.7	924.0	922.3	923.1	911.3	915.5	919.7	915.5	916.4
5°	984.8	984.0	973.9	948.5	938.3	931.6	912.1	908.8	906.2	896.9	893.5
7.5°	1044.9	1033.0	1011.9	973.9	952.7	934.1	905.4	891.0	880.9	864.8	855.5
10°	1086.3	1062.6	1031.3	981.5	949.3	920.6	883.4	861.4	844.5	823.4	809.9
12.5°	1092.2	1059.2	1022.9	964.6	927.4	891.9	851.3	826.8	807.3	784.5	771.8
15°	1054.2	1020.3	982.3	924.0	886.8	850.4	811.5	787.0	767.6	745.6	734.6
17.5°	982.3	951.0	917.2	863.1	831.0	798.0	763.4	742.2	725.3	708.4	697.4
20°	891.0	866.5	838.6	792.9	767.6	740.5	713.5	696.6	683.9	669.5	661.1
22.5°	800.6	782.0	761.7	725.3	706.7	687.3	666.1	654.3	645.0	634.0	628.1
25°	713.5	700.8	688.1	660.2	649.2	635.7	620.5	612.0	606.1	598.5	594.3
27.5°	623.0	618.8	615.4	597.7	593.4	584.1	574.0	568.9	564.7	559.6	556.2
30°	525.0	527.5	541.0	531.7	536.0	533.4	529.2	525.8	524.1	519.9	515.7
32.5°	414.2	432.0	451.4	454.0	466.6	472.6	471.7	472.6	473.4	470.0	466.6
35°	296.7	325.5	355.9	369.4	390.6	404.1	409.2	414.2	417.6	416.8	414.2
37.5°	197.8	236.7	273.1	296.7	324.6	343.2	354.2	362.7	367.7	369.4	369.4
40°	131.9	169.1	217.3	247.7	279.0	301.8	314.5	325.5	333.1	336.5	338.1
42.5°	93.0	132.7	181.8	216.4	248.5	273.1	287.4	299.3	306.9	311.1	312.8
45°	68.5	106.5	157.2	192.7	225.7	249.4	263.8	274.7	282.3	286.6	289.1
47.5°	52.4	89.6	138.6	175.0	208.0	229.9	243.5	253.6	260.4	263.8	265.4
50°	41.4	75.2	123.4	159.8	190.2	210.5	222.3	230.8	236.7	239.2	240.9
52.5°	33.8	65.1	110.7	145.4	174.1	191.9	201.2	208.0	213.0	214.7	216.4
55°	28.7	56.6	99.8	133.6	159.8	175.0	181.8	187.7	190.2	191.9	192.7
57.5°	25.4	49.9	90.5	122.6	146.2	158.9	164.0	168.2	169.1	170.8	171.6
60°	22.0	43.1	80.3	110.7	131.9	142.9	145.4	148.8	148.8	149.6	150.5
62.5°	18.6	37.2	70.2	98.9	117.5	126.8	128.5	129.3	129.3	129.3	130.2
65°	15.2	31.3	59.2	85.4	102.3	108.2	109.1	109.9	108.2	108.2	109.1
67.5°	12.7	24.5	47.3	70.2	83.7	88.8	87.9	87.9	85.4	85.4	86.2
70°	9.3	18.6	35.5	53.3	63.4	66.8	65.1	65.1	62.6	62.6	63.4
72.5°	6.8	13.5	24.5	36.4	44.0	45.6	44.0	44.0	42.3	42.3	43.1
75°	5.1	8.5	16.1	23.7	27.9	28.7	27.9	27.1	26.2	26.2	27.1
77.5°	3.4	5.9	9.3	13.5	16.1	16.9	16.1	16.1	15.2	16.1	16.1
80°	1.7	3.4	5.1	7.6	8.5	9.3	9.3	9.3	8.5	8.5	9.3
82.5°	0.8	1.7	2.5	3.4	4.2	5.1	4.2	4.2	4.2	4.2	4.2
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



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CANDELA DISTRIBUTION (continued):

	165°	170°	175°	180°
0°	929.9	929.9	929.9	929.9
2.5°	914.7	910.4	904.5	917.2
5°	888.5	880.0	873.3	885.1
7.5°	847.0	835.2	825.9	837.7
10°	799.7	786.2	776.0	787.0
12.5°	758.3	744.8	736.3	744.8
15°	721.9	709.3	701.6	709.3
17.5°	686.4	675.4	668.7	677.1
20°	652.6	643.3	637.4	645.0
22.5°	621.3	612.9	607.8	615.4
25°	588.4	582.5	576.5	583.3
27.5°	552.0	545.3	541.9	546.1
30°	510.6	503.8	501.3	504.7
32.5°	461.6	454.8	452.3	454.8
35°	410.8	404.9	401.5	404.9
37.5°	367.7	362.7	360.1	362.7
40°	337.3	334.8	332.2	335.6
42.5°	313.6	311.1	309.4	311.9
45°	289.1	285.7	284.0	286.6
47.5°	264.6	261.2	259.5	261.2
50°	239.2	235.0	234.2	235.0
52.5°	213.9	210.5	208.8	209.6
55°	191.1	188.5	186.8	187.7
57.5°	170.8	167.4	166.5	167.4
60°	150.5	148.8	147.9	148.8
62.5°	130.2	129.3	130.2	130.2
65°	109.9	109.9	110.7	110.7
67.5°	87.9	89.6	90.5	90.5
70°	65.1	66.8	67.6	67.6
72.5°	44.0	45.6	46.5	47.3
75°	27.9	29.6	30.4	30.4
77.5°	16.9	17.8	17.8	18.6
80°	9.3	10.1	10.1	10.1
82.5°	5.1	5.1	5.1	5.9
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)