

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: P135646

Luminaire Tested: **LD6A10D010TE ERM6A10935 6LM111H**

Issue Date: 3/3/2020

Test Information

Test Method: LM-41-14
Report Number: P135646
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P23372)
Test Lab: INNOVATION CENTER P2
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: io LED
Catalog Number: LD6A10D010TE ERM6A10935 6LM111H
Description: PORTFOLIO 6 INCH 50 DEGREE CUTOFF RECESSED SINGLE WALL WASH LUMINAIRE
SEMI-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: 1035.5 lumens
Efficiency: N/A
Efficacy: 74.0 lumens/watt
Spacing Criteria (0/90/45): 0.9 / 0.96 / 0.92
Luminous Opening: Circular (Dia: 0.46' x H: 0')
CIE Type: Direct

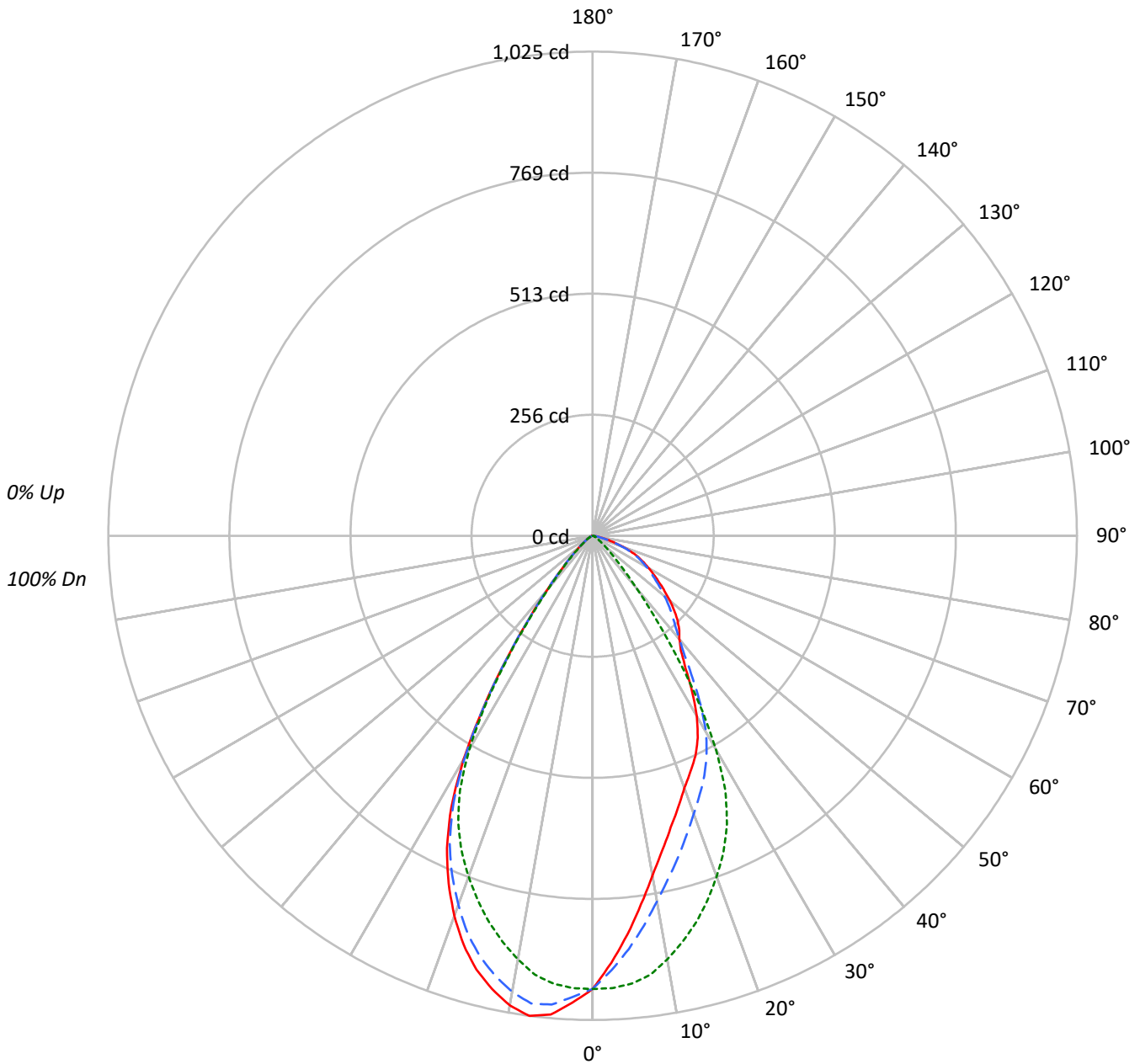
Input Watts (W): 14
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	109	106	104	110	107	104	102	103	101	99	99	97	96	96	94	93	91																			
2	106	100	95	91	103	98	94	90	95	91	88	92	89	86	89	87	84	83																			
3	99	92	86	81	97	90	85	81	88	83	79	85	81	78	83	80	77	75																			
4	93	85	78	73	91	83	77	73	81	76	72	79	75	71	77	73	70	68																			
5	88	78	72	67	86	77	71	66	75	70	66	74	69	65	72	68	64	63																			
6	83	73	66	61	81	72	65	61	70	65	60	69	64	60	67	63	59	58																			
7	78	68	61	56	77	67	61	56	66	60	56	64	59	55	63	59	55	53																			
8	74	63	57	52	73	63	56	52	62	56	52	60	55	51	59	55	51	50																			
9	70	59	53	48	69	59	53	48	58	52	48	57	52	48	56	51	48	46																			
10	67	56	49	45	65	55	49	45	54	49	45	54	48	45	53	48	45	43																			

AVERAGE LUMINANCE (cd/sqm):

	0°	90°	180°
0°	62592	62592	62592
5°	55450	62320	66629
10°	48327	60305	66883
15°	43173	57188	64199
20°	39421	53286	59409
25°	37022	48424	52513
30°	33192	39332	41094
35°	27278	24347	24968
40°	24323	11966	12630
45°	23472	5969	6375
50°	21629	3167	3400
55°	19541	1900	2025
60°	17902	1305	1305
65°	16348	1034	864
70°	13181	858	629
75°	8142	555	277
80°	4621	413	0
85°	2470	0	0



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	88.0	8.5
10°-20°	228.5	22.1
20°-30°	290.8	28.1
30°-40°	208.3	20.1
40°-50°	103.9	10.0
50°-60°	62.9	6.1
60°-70°	38.4	3.7
70°-80°	13.2	1.3
80°-90°	1.4	0.1
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°	607.2	58.6
0°-40°	815.5	78.8
0°-60°	982.4	94.9
0°-90°	1035.5	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1035.5	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	959	959	959	959	959	
5°	847	878	952	996	1017	77
15°	639	703	847	922	950	180
25°	514	560	673	716	730	235
35°	342	369	306	314	314	219
45°	254	238	65	71	69	195
55°	172	162	17	18	18	155
65°	106	103	7	6	6	103
75°	32	29	2	1	1	37
85°	3	2	0	0	0	5
90°	0	0	0	0	0	



TEST NUMBER: P135646

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CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	959.4	959.4	959.4	959.4	959.4	959.4	959.4	959.4	959.4	959.4	959.4
2.5°	904.7	905.8	908.1	905.8	907.0	912.5	910.3	911.4	914.8	920.3	917.0
5°	846.7	847.9	853.4	850.1	852.3	859.0	859.0	863.5	870.2	878.0	878.0
7.5°	786.5	788.7	794.3	792.1	795.4	804.4	805.5	812.2	821.1	832.2	837.8
10°	729.5	731.8	737.3	736.2	740.7	749.6	754.1	760.8	771.9	785.3	792.1
12.5°	681.6	683.8	688.3	688.3	693.9	702.8	707.2	716.2	727.3	741.8	750.7
15°	639.2	642.6	647.0	647.0	652.6	661.5	667.1	674.9	687.2	702.8	712.8
17.5°	602.4	603.5	608.0	608.0	613.6	622.5	628.1	635.9	648.1	662.6	673.8
20°	567.8	569.0	573.4	574.5	579.0	586.8	592.4	600.2	611.3	625.8	635.9
22.5°	541.1	543.3	546.6	547.8	550.0	557.8	564.5	570.1	580.1	592.4	602.4
25°	514.3	515.4	518.8	519.9	523.2	528.8	533.3	538.8	547.8	560.0	567.8
27.5°	482.0	485.3	486.4	487.5	490.9	495.4	499.8	504.3	512.1	522.1	528.8
30°	440.6	441.7	445.1	447.3	450.6	455.1	460.7	465.2	471.9	479.7	484.2
32.5°	392.7	393.8	397.1	399.3	404.9	409.4	413.8	417.2	421.6	426.1	426.1
35°	342.5	345.8	346.9	350.3	355.8	360.3	363.7	364.8	367.0	369.2	361.4
37.5°	306.8	309.0	311.2	313.5	317.9	321.3	323.5	323.5	322.4	320.2	310.1
40°	285.6	286.7	288.9	290.1	294.5	296.7	296.7	294.5	290.1	284.5	268.9
42.5°	271.1	272.2	273.3	274.4	276.7	277.8	276.7	272.2	266.6	258.8	241.0
45°	254.4	255.5	256.6	256.6	258.8	258.8	257.7	253.3	246.6	237.6	218.7
47.5°	234.3	235.4	236.5	237.6	238.8	238.8	237.6	233.2	226.5	218.7	198.6
50°	213.1	214.2	215.3	215.3	217.6	217.6	216.4	212.0	206.4	198.6	180.8
52.5°	191.9	193.0	193.0	195.3	195.3	195.3	194.1	189.7	185.2	179.6	162.9
55°	171.8	173.0	173.0	175.2	176.3	175.2	174.1	170.7	166.2	161.8	148.3
57.5°	153.9	155.1	155.1	156.2	157.3	156.2	155.1	152.8	150.6	146.1	134.9
60°	137.2	138.3	138.3	139.4	139.4	138.3	138.3	136.1	133.8	131.6	121.6
62.5°	121.6	121.6	121.6	122.7	122.7	121.6	121.6	119.3	118.2	117.1	109.3
65°	105.9	105.9	105.9	105.9	105.9	103.7	103.7	102.6	101.5	102.6	95.9
67.5°	88.1	88.1	87.0	87.0	87.0	84.8	84.8	84.8	83.6	84.8	79.2
70°	69.1	69.1	68.0	68.0	66.9	64.7	64.7	64.7	63.6	64.7	61.3
72.5°	49.1	50.2	48.0	48.0	46.8	44.6	45.7	44.6	45.7	45.7	43.5
75°	32.3	33.5	31.2	31.2	30.1	29.0	29.0	29.0	30.1	29.0	27.9
77.5°	20.1	21.2	20.1	20.1	19.0	17.8	17.8	17.8	17.8	17.8	16.7
80°	12.3	12.3	12.3	11.2	11.2	10.0	10.0	10.0	10.0	10.0	8.9
82.5°	6.7	6.7	6.7	6.7	6.7	5.6	5.6	5.6	5.6	5.6	4.5
85°	3.3	3.3	3.3	3.3	3.3	2.2	2.2	2.2	2.2	2.2	2.2
87.5°	1.1	1.1	1.1	1.1	1.1	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°	959.4	959.4	959.4	959.4	959.4	959.4	959.4	959.4	959.4	959.4	959.4
2.5°	927.0	931.5	928.1	941.5	939.3	949.3	948.2	958.3	957.1	958.3	960.5
5°	891.3	900.3	901.4	918.1	919.2	934.8	938.2	951.6	953.8	958.3	963.8
7.5°	852.3	865.7	870.2	889.1	895.8	912.5	919.2	937.1	941.5	949.3	956.0
10°	809.9	825.6	832.2	854.5	863.5	882.4	891.3	910.3	917.0	925.9	933.7
12.5°	769.7	786.5	795.4	818.9	831.1	850.1	860.1	880.2	886.9	898.0	905.8
15°	731.8	749.6	759.7	783.1	795.4	816.6	826.7	846.7	854.5	865.7	873.5
17.5°	692.7	710.6	721.7	744.0	759.7	777.5	788.7	808.8	816.6	826.7	834.5
20°	654.8	672.7	682.7	705.0	719.5	737.3	747.4	767.5	773.0	783.1	789.8
22.5°	619.1	635.9	644.8	668.2	680.5	696.1	706.1	724.0	730.7	738.5	742.9
25°	583.5	597.9	604.6	624.7	634.8	649.2	657.1	672.7	679.4	686.0	691.6
27.5°	543.3	551.1	553.3	569.0	576.8	590.1	593.5	608.0	613.6	618.0	622.5
30°	493.1	494.2	487.5	495.4	498.7	508.7	508.7	522.1	526.6	529.9	534.4
32.5°	429.5	422.8	407.1	404.9	402.7	408.3	406.0	417.2	421.6	423.9	427.2
35°	359.2	344.7	319.0	309.0	302.3	301.2	297.9	305.7	309.0	311.2	313.5
37.5°	297.9	276.7	244.3	226.5	215.3	210.9	206.4	210.9	213.1	215.3	217.6
40°	253.3	226.5	188.6	166.2	150.6	143.9	138.3	140.5	142.7	145.0	146.1
42.5°	220.9	190.8	149.5	122.7	107.1	99.3	93.7	94.8	95.9	97.0	99.3
45°	196.4	164.0	121.6	92.6	76.9	69.1	64.7	64.7	65.8	66.9	68.0
47.5°	176.3	141.6	99.3	71.4	56.9	49.1	44.6	44.6	45.7	45.7	46.8
50°	157.3	122.7	81.4	55.8	42.4	35.7	32.3	31.2	32.3	32.3	33.5
52.5°	141.6	108.2	68.0	44.6	32.3	26.8	23.4	23.4	23.4	23.4	23.4
55°	127.1	94.8	56.9	35.7	25.6	21.2	17.8	16.7	16.7	16.7	16.7
57.5°	116.0	84.8	49.1	30.1	21.2	16.7	14.5	13.4	13.4	13.4	13.4
60°	104.8	74.7	42.4	24.5	16.7	14.5	12.3	10.0	10.0	10.0	10.0
62.5°	93.7	64.7	35.7	21.2	14.5	11.2	10.0	7.8	7.8	7.8	7.8
65°	81.4	55.8	30.1	16.7	11.2	8.9	7.8	6.7	6.7	5.6	5.6
67.5°	66.9	44.6	24.5	14.5	10.0	7.8	6.7	5.6	4.5	4.5	4.5
70°	51.3	33.5	19.0	11.2	7.8	6.7	4.5	4.5	3.3	3.3	3.3
72.5°	36.8	23.4	13.4	8.9	5.6	4.5	4.5	3.3	3.3	3.3	2.2
75°	23.4	15.6	8.9	5.6	4.5	3.3	3.3	2.2	2.2	2.2	2.2
77.5°	14.5	10.0	6.7	4.5	3.3	2.2	2.2	2.2	1.1	1.1	1.1
80°	7.8	5.6	3.3	2.2	2.2	1.1	1.1	1.1	1.1	1.1	1.1
82.5°	4.5	3.3	2.2	1.1	1.1	1.1	1.1	1.1	0.0	0.0	0.0
85°	2.2	1.1	1.1	1.1	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°	959.4	959.4	959.4	959.4	959.4	959.4	959.4	959.4	959.4	959.4	959.4
2.5°	967.2	972.8	969.4	971.6	981.7	977.2	985.0	985.0	993.9	993.9	987.3
5°	973.9	980.6	981.7	985.0	998.4	996.2	1005.1	1007.3	1017.4	1019.6	1014.0
7.5°	969.4	977.2	980.6	986.1	999.5	998.4	1008.4	1012.9	1021.8	1025.2	1020.7
10°	948.2	957.1	961.6	967.2	981.7	980.6	991.7	997.3	1005.1	1008.4	1005.1
12.5°	920.3	930.4	934.8	940.4	954.9	953.8	965.0	970.5	977.2	981.7	978.3
15°	889.1	895.8	903.6	909.2	922.6	921.5	932.6	938.2	943.8	949.3	946.0
17.5°	849.0	855.7	863.5	867.9	881.3	881.3	890.2	894.7	902.5	907.0	902.5
20°	803.2	811.1	816.6	820.0	832.2	831.1	840.0	844.5	851.2	854.5	851.2
22.5°	755.2	761.9	766.3	768.6	778.6	777.5	784.2	788.7	794.3	797.7	794.3
25°	700.5	705.0	708.4	709.5	718.4	716.2	725.1	725.1	729.5	732.9	729.5
27.5°	630.3	633.6	635.9	634.8	641.4	638.1	645.9	640.3	649.2	651.5	648.1
30°	540.0	542.2	544.4	540.0	544.4	540.0	546.6	538.8	546.6	550.0	546.6
32.5°	432.8	432.8	435.0	429.5	431.7	427.2	430.6	428.3	430.6	433.9	430.6
35°	317.9	317.9	320.2	316.8	317.9	313.5	315.7	313.5	314.6	316.8	315.7
37.5°	220.9	219.8	223.1	220.9	222.0	219.8	220.9	218.7	219.8	220.9	219.8
40°	149.5	149.5	151.7	150.6	151.7	150.6	151.7	150.6	150.6	150.6	149.5
42.5°	100.4	101.5	102.6	102.6	103.7	102.6	103.7	102.6	102.6	102.6	101.5
45°	69.1	69.1	70.3	70.3	71.4	71.4	71.4	70.3	70.3	70.3	70.3
47.5°	48.0	49.1	49.1	49.1	49.1	49.1	49.1	49.1	49.1	49.1	48.0
50°	33.5	34.6	34.6	34.6	34.6	34.6	34.6	33.5	33.5	33.5	33.5
52.5°	24.5	24.5	24.5	24.5	24.5	24.5	24.5	24.5	24.5	23.4	23.4
55°	17.8	17.8	17.8	17.8	17.8	17.8	17.8	17.8	17.8	17.8	17.8
57.5°	13.4	13.4	13.4	13.4	13.4	13.4	13.4	13.4	13.4	13.4	13.4
60°	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0
62.5°	7.8	7.8	7.8	7.8	7.8	7.8	7.8	7.8	7.8	7.8	7.8
65°	5.6	5.6	5.6	5.6	5.6	5.6	5.6	5.6	5.6	5.6	5.6
67.5°	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
70°	3.3	3.3	3.3	3.3	3.3	3.3	3.3	3.3	3.3	3.3	3.3
72.5°	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2
75°	2.2	2.2	2.2	2.2	2.2	1.1	1.1	1.1	1.1	1.1	1.1
77.5°	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1
80°	0.0	1.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
82.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
85°	0.0	0.0	0.0	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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CATALOG NUMBER: LD6A10D010TE ERM6A10935 6LM111H

CANDELA DISTRIBUTION (continued):

	165°	170°	175°	180°
0°	959.4	959.4	959.4	959.4
2.5°	983.9	992.8	989.5	989.5
5°	1010.7	1020.7	1018.5	1017.4
7.5°	1018.5	1027.4	1025.2	1025.2
10°	1002.9	1011.8	1009.6	1009.6
12.5°	977.2	985.0	983.9	982.8
15°	944.9	952.7	951.6	950.5
17.5°	901.4	910.3	909.2	908.1
20°	849.0	856.8	856.8	855.7
22.5°	792.1	797.7	798.8	796.5
25°	727.3	731.8	731.8	729.5
27.5°	645.9	649.2	649.2	648.1
30°	545.5	546.6	547.8	545.5
32.5°	428.3	428.3	430.6	428.3
35°	312.4	312.4	314.6	313.5
37.5°	217.6	217.6	218.7	217.6
40°	148.3	148.3	149.5	148.3
42.5°	101.5	100.4	101.5	101.5
45°	69.1	69.1	70.3	69.1
47.5°	48.0	48.0	48.0	48.0
50°	33.5	33.5	33.5	33.5
52.5°	23.4	23.4	23.4	23.4
55°	16.7	17.8	17.8	17.8
57.5°	12.3	13.4	13.4	13.4
60°	10.0	10.0	10.0	10.0
62.5°	7.8	7.8	7.8	7.8
65°	5.6	5.6	5.6	5.6
67.5°	4.5	4.5	4.5	4.5
70°	3.3	3.3	3.3	3.3
72.5°	2.2	2.2	2.2	2.2
75°	1.1	1.1	1.1	1.1
77.5°	1.1	1.1	1.1	1.1
80°	0.0	0.0	0.0	0.0
82.5°	0.0	0.0	0.0	0.0
85°	0.0	0.0	0.0	0.0
87.5°	0.0	0.0	0.0	0.0
90°	0.0	0.0	0.0	0.0



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













(END OF REPORT)