

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: P135880

Luminaire Tested: **LD6A10D010TE ERM6A10827 6LM121H**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-41-14  
Report Number: P135880  
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: LD6A10D010TE ERM6A10827 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: 1083.0 lumens  
Efficiency: N/A  
Efficacy: 77.4 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

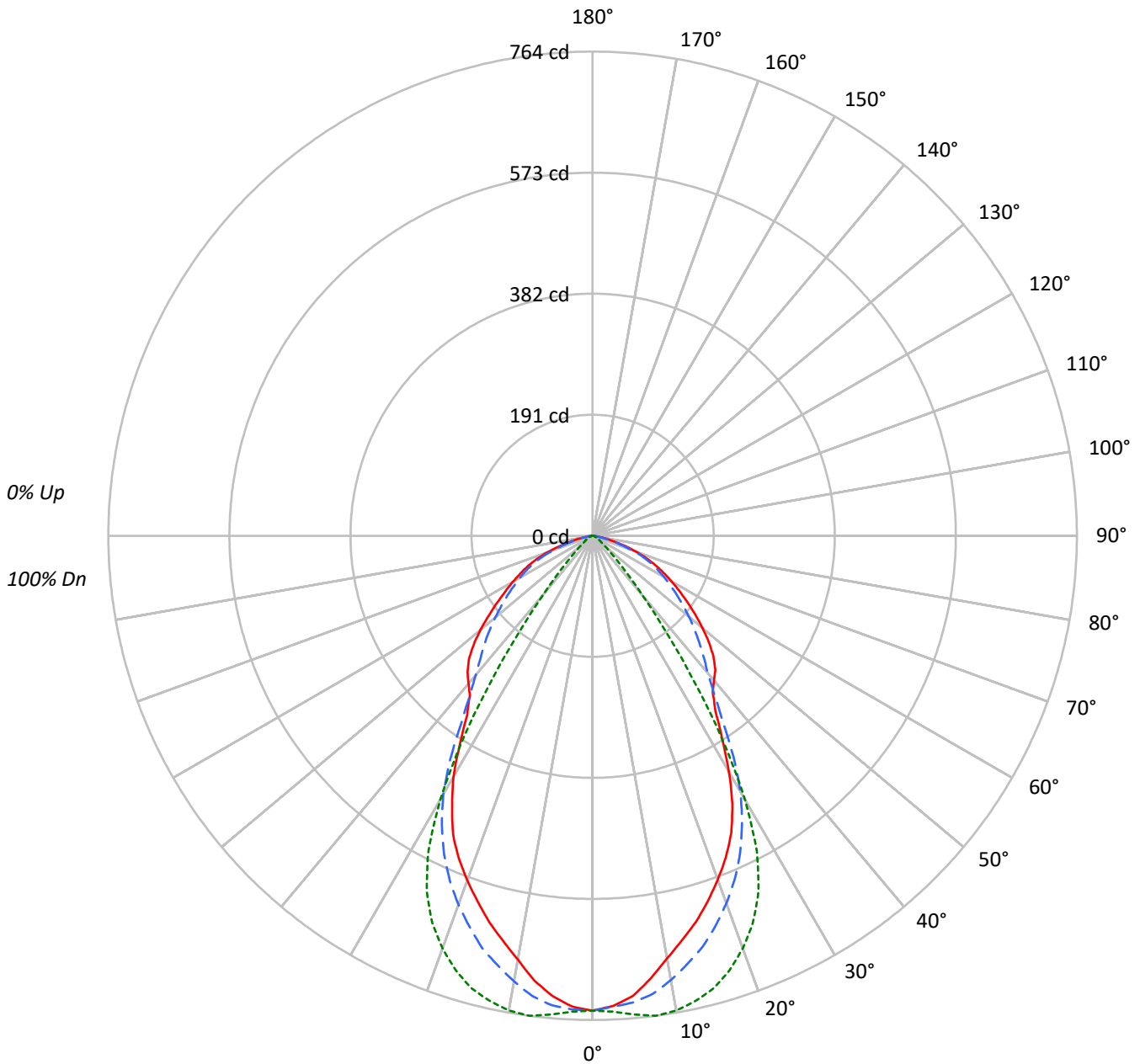
Input Watts (W): 14  
Input Voltage (V): NR  
Input Current (A<sub>in</sub>): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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

**AVERAGE LUMINANCE (cd/sqm):**

	0°	90°	180°
0°	48885	48885	48885
5°	47736	49667	47736
10°	44843	50388	44988
15°	42585	49920	42585
20°	40081	48093	40157
25°	37238	44566	37483
30°	32401	36235	33086
35°	26864	21902	27493
40°	25354	10220	25933
45°	24856	4807	25483
50°	22979	2527	23436
55°	20724	1672	20861
60°	18750	1331	18907
65°	16780	1050	17305
70°	13810	858	14249
75°	9125	580	9125
80°	5110	413	5110
85°	3368	0	2545



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	69.9	6.5
10°-20°	189.6	17.5
20°-30°	253.4	23.4
30°-40°	209.6	19.4
40°-50°	150.4	13.9
50°-60°	110.5	10.2
60°-70°	71.4	6.6
70°-80°	25.3	2.3
80°-90°	2.9	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°	513.0	47.4
0°-40°	722.5	66.7
0°-60°	983.4	90.8
0°-90°	1083.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1083.0	100.0

**CANDELA DISTRIBUTION:**

	0°	45°	90°	135°	180°	Flux
0°	749	749	749	749	749	
5°	729	739	758	744	729	68
15°	630	671	739	674	630	177
25°	517	551	619	555	521	235
35°	337	358	275	361	345	217
45°	269	238	52	241	276	206
55°	182	162	15	164	183	164
65°	109	101	7	102	112	107
75°	36	29	2	29	36	41
85°	4	2	0	2	3	6
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°	749.3	749.3	749.3	749.3	749.3	749.3	749.3	749.3	749.3	749.3	749.3
2.5°	742.5	736.8	741.4	736.8	738.0	742.5	743.6	745.9	747.0	743.6	743.6
5°	728.9	723.3	728.9	724.4	726.7	732.3	733.5	738.0	740.2	739.1	741.4
7.5°	704.0	699.5	705.2	701.8	705.2	713.1	716.5	722.1	726.7	728.9	732.3
10°	676.9	672.3	678.0	674.6	680.3	689.3	692.7	699.5	706.3	711.9	717.6
12.5°	653.1	648.6	652.0	650.8	656.5	664.4	670.1	678.0	685.9	691.6	699.5
15°	630.5	625.9	630.5	628.2	632.7	641.8	647.4	655.4	664.4	671.2	680.3
17.5°	604.4	599.9	603.3	602.2	606.7	614.6	620.3	628.2	637.2	645.2	654.2
20°	577.3	572.7	576.1	573.9	578.4	587.4	592.0	601.0	608.9	616.9	624.8
22.5°	549.0	544.4	549.0	545.6	552.4	558.0	562.5	571.6	578.4	586.3	593.1
25°	517.3	512.7	516.1	513.9	518.4	525.2	528.6	537.6	543.3	551.2	558.0
27.5°	477.6	472.0	478.8	474.3	479.9	485.6	489.0	496.9	503.7	510.5	516.1
30°	430.1	425.6	432.4	429.0	435.8	440.3	444.8	452.7	458.4	466.3	467.5
32.5°	380.3	378.0	383.7	381.4	388.2	392.8	396.2	404.1	408.6	413.1	409.7
35°	337.3	335.0	340.7	339.6	345.2	348.6	352.0	356.5	356.5	357.7	348.6
37.5°	311.3	310.1	314.7	313.5	318.1	321.5	321.5	322.6	320.3	314.7	301.1
40°	297.7	296.6	299.9	298.8	302.2	303.3	302.2	299.9	293.2	281.8	263.7
42.5°	286.4	284.1	286.4	285.2	287.5	288.6	285.2	281.8	272.8	259.2	237.7
45°	269.4	267.1	270.5	268.3	270.5	270.5	267.1	262.6	252.4	237.7	215.1
47.5°	249.0	246.7	250.1	247.9	250.1	250.1	246.7	242.2	232.0	217.3	194.7
50°	226.4	224.1	226.4	225.2	227.5	228.6	224.1	220.7	211.7	198.1	175.4
52.5°	203.7	201.5	203.7	203.7	204.9	204.9	201.5	199.2	191.3	178.8	158.5
55°	182.2	180.0	183.4	182.2	183.4	183.4	180.0	177.7	172.0	161.9	142.6
57.5°	161.9	160.7	163.0	161.9	161.9	161.9	159.6	158.5	153.9	144.9	129.0
60°	143.7	141.5	142.6	142.6	142.6	143.7	141.5	140.4	137.0	130.2	115.5
62.5°	125.6	124.5	125.6	124.5	124.5	125.6	124.5	123.4	121.1	115.5	103.0
65°	108.7	106.4	108.7	107.5	107.5	107.5	106.4	106.4	104.1	100.7	89.4
67.5°	90.5	89.4	90.5	89.4	88.3	88.3	87.2	87.2	86.0	83.8	73.6
70°	72.4	70.2	71.3	69.0	70.2	67.9	67.9	66.8	65.6	64.5	56.6
72.5°	53.2	52.1	52.1	49.8	49.8	48.7	47.5	47.5	46.4	46.4	40.7
75°	36.2	36.2	35.1	32.8	34.0	31.7	31.7	31.7	30.6	29.4	26.0
77.5°	23.8	22.6	22.6	21.5	21.5	19.2	20.4	19.2	19.2	18.1	15.8
80°	13.6	13.6	13.6	12.5	12.5	11.3	11.3	11.3	10.2	10.2	9.1
82.5°	7.9	7.9	7.9	6.8	6.8	6.8	6.8	5.7	5.7	5.7	4.5
85°	4.5	3.4	3.4	3.4	3.4	3.4	3.4	2.3	2.3	2.3	2.3
87.5°	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	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°	749.3	749.3	749.3	749.3	749.3	749.3	749.3	749.3	749.3	749.3	749.3
2.5°	748.2	747.0	745.9	750.4	751.6	748.2	748.2	751.6	753.8	748.2	747.0
5°	747.0	748.2	748.2	753.8	757.2	755.0	755.0	758.4	760.6	753.8	751.6
7.5°	741.4	744.8	747.0	755.0	760.6	759.5	760.6	764.0	765.1	758.4	755.0
10°	728.9	733.5	738.0	748.2	755.0	756.1	757.2	760.6	762.9	753.8	749.3
12.5°	711.9	718.7	725.5	736.8	744.8	745.9	749.3	751.6	752.7	744.8	739.1
15°	692.7	701.8	708.6	721.0	730.1	732.3	735.7	739.1	739.1	730.1	724.4
17.5°	668.9	676.9	685.9	698.4	708.6	710.8	715.3	718.7	718.7	709.7	701.8
20°	639.5	648.6	656.5	670.1	681.4	684.8	689.3	692.7	692.7	684.8	674.6
22.5°	608.9	618.0	625.9	638.4	649.7	653.1	656.5	661.0	659.9	653.1	644.0
25°	572.7	580.6	586.3	598.8	607.8	611.2	615.7	619.1	618.0	611.2	603.3
27.5°	528.6	534.2	535.4	543.3	551.2	554.6	558.0	561.4	560.3	554.6	547.8
30°	477.6	476.5	470.9	470.9	474.3	476.5	478.8	481.0	479.9	476.5	472.0
32.5°	413.1	405.2	390.5	382.6	379.2	379.2	379.2	381.4	380.3	379.2	379.2
35°	344.1	327.1	304.5	287.5	278.4	275.0	272.8	275.0	273.9	275.0	279.6
37.5°	287.5	262.6	232.0	209.4	194.7	187.9	183.4	184.5	184.5	187.9	195.8
40°	245.6	213.9	180.0	151.7	134.7	125.6	120.0	120.0	121.1	125.6	135.8
42.5°	213.9	178.8	141.5	114.3	93.9	84.9	79.2	78.1	79.2	84.9	95.1
45°	189.0	151.7	114.3	84.9	67.9	57.7	53.2	52.1	53.2	58.9	67.9
47.5°	167.5	130.2	95.1	65.6	48.7	40.7	36.2	35.1	37.4	41.9	49.8
50°	149.4	113.2	78.1	52.1	37.4	29.4	26.0	24.9	26.0	30.6	37.4
52.5°	132.4	98.5	65.6	40.7	28.3	22.6	19.2	18.1	19.2	22.6	29.4
55°	118.8	87.2	56.6	34.0	22.6	18.1	15.8	14.7	15.8	18.1	23.8
57.5°	106.4	77.0	48.7	28.3	19.2	14.7	12.5	12.5	12.5	14.7	19.2
60°	95.1	67.9	41.9	23.8	15.8	12.5	10.2	10.2	10.2	12.5	15.8
62.5°	84.9	60.0	36.2	20.4	13.6	10.2	9.1	9.1	9.1	10.2	13.6
65°	72.4	50.9	30.6	17.0	11.3	9.1	7.9	6.8	7.9	9.1	11.3
67.5°	60.0	41.9	24.9	13.6	9.1	6.8	5.7	5.7	5.7	6.8	9.1
70°	46.4	32.8	19.2	10.2	6.8	5.7	4.5	4.5	4.5	5.7	6.8
72.5°	31.7	22.6	13.6	7.9	5.7	4.5	3.4	3.4	3.4	4.5	5.7
75°	20.4	14.7	9.1	5.7	3.4	3.4	2.3	2.3	2.3	3.4	3.4
77.5°	12.5	9.1	5.7	3.4	2.3	2.3	2.3	2.3	2.3	2.3	2.3
80°	6.8	5.7	3.4	2.3	2.3	1.1	1.1	1.1	1.1	1.1	1.1
82.5°	3.4	3.4	2.3	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1
85°	1.1	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°	749.3	749.3	749.3	749.3	749.3	749.3	749.3	749.3	749.3	749.3	749.3
2.5°	747.0	749.3	750.4	745.9	747.0	748.2	741.4	742.5	739.1	745.9	742.5
5°	750.4	751.6	752.7	745.9	744.8	743.6	735.7	734.6	730.1	735.7	732.3
7.5°	751.6	749.3	749.3	739.1	735.7	732.3	722.1	718.7	713.1	715.3	710.8
10°	745.9	741.4	738.0	725.5	719.9	714.2	701.8	697.2	689.3	690.4	684.8
12.5°	733.5	727.8	722.1	708.6	701.8	693.8	681.4	674.6	666.7	666.7	659.9
15°	717.6	710.8	704.0	690.4	681.4	673.5	658.7	652.0	644.0	642.9	637.2
17.5°	695.0	687.0	680.3	664.4	655.4	646.3	632.7	624.8	616.9	616.9	610.1
20°	667.8	658.7	650.8	636.1	627.1	619.1	603.3	596.5	589.7	588.6	582.9
22.5°	636.1	627.1	620.3	606.7	596.5	588.6	575.0	569.3	562.5	561.4	554.6
25°	596.5	588.6	581.8	570.5	561.4	554.6	542.2	535.4	530.8	530.8	525.2
27.5°	543.3	536.5	535.4	526.3	519.5	515.0	504.8	500.3	494.6	494.6	487.8
30°	472.0	473.1	477.6	475.4	473.1	470.9	461.8	460.7	453.9	452.7	444.8
32.5°	384.8	392.8	405.2	412.0	415.4	417.7	415.4	413.1	407.5	406.3	397.3
35°	292.0	307.9	328.2	341.8	353.1	361.1	364.5	364.5	362.2	361.1	353.1
37.5°	211.7	235.4	262.6	285.2	303.3	318.1	324.8	329.4	329.4	329.4	326.0
40°	155.1	183.4	215.1	244.5	267.1	286.4	296.6	304.5	306.7	310.1	307.9
42.5°	115.5	146.0	180.0	213.9	240.0	261.5	275.0	284.1	289.8	293.2	293.2
45°	88.3	118.8	153.9	190.2	217.3	241.1	254.7	264.9	270.5	275.0	275.0
47.5°	67.9	97.3	132.4	168.6	196.9	220.7	234.3	243.4	249.0	253.5	253.5
50°	53.2	80.4	114.3	149.4	177.7	200.3	212.8	221.8	226.4	229.8	230.9
52.5°	43.0	67.9	100.7	134.7	160.7	181.1	191.3	199.2	203.7	206.0	207.1
55°	35.1	58.9	89.4	120.0	144.9	164.1	173.2	178.8	182.2	184.5	184.5
57.5°	29.4	50.9	79.2	108.7	132.4	147.1	155.1	159.6	161.9	164.1	164.1
60°	24.9	44.1	70.2	97.3	118.8	132.4	138.1	141.5	143.7	144.9	144.9
62.5°	21.5	37.4	61.1	86.0	105.3	117.7	122.2	124.5	125.6	125.6	126.8
65°	18.1	31.7	52.1	74.7	90.5	101.9	105.3	106.4	106.4	107.5	108.7
67.5°	13.6	24.9	41.9	61.1	74.7	83.8	87.2	87.2	87.2	87.2	88.3
70°	11.3	19.2	31.7	46.4	57.7	64.5	66.8	66.8	66.8	66.8	67.9
72.5°	7.9	13.6	22.6	32.8	41.9	46.4	46.4	47.5	46.4	46.4	48.7
75°	5.7	9.1	14.7	21.5	26.0	29.4	30.6	30.6	30.6	30.6	31.7
77.5°	3.4	5.7	9.1	12.5	17.0	18.1	19.2	19.2	19.2	19.2	20.4
80°	2.3	3.4	5.7	7.9	9.1	10.2	11.3	11.3	11.3	11.3	11.3
82.5°	1.1	2.3	3.4	3.4	4.5	5.7	5.7	5.7	5.7	5.7	6.8
85°	0.0	1.1	1.1	2.3	2.3	2.3	2.3	2.3	2.3	2.3	3.4
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: P135880

CATALOG NUMBER: LD6A10D010TE ERM6A10827 6LM121H

**CANDELA DISTRIBUTION (continued):**

	165°	170°	175°	180°
0°	749.3	749.3	749.3	749.3
2.5°	735.7	743.6	738.0	743.6
5°	724.4	731.2	724.4	728.9
7.5°	701.8	707.4	700.6	707.4
10°	674.6	680.3	673.5	679.1
12.5°	649.7	654.2	647.4	654.2
15°	627.1	631.6	624.8	630.5
17.5°	601.0	604.4	598.8	604.4
20°	573.9	577.3	572.7	578.4
22.5°	546.7	551.2	545.6	551.2
25°	516.1	519.5	513.9	520.7
27.5°	479.9	482.2	476.5	479.9
30°	435.8	436.9	432.4	439.2
32.5°	389.4	389.4	382.6	389.4
35°	346.4	345.2	340.7	345.2
37.5°	319.2	319.2	315.8	318.1
40°	303.3	304.5	299.9	304.5
42.5°	289.8	292.0	288.6	292.0
45°	272.8	275.0	271.6	276.2
47.5°	251.3	253.5	251.3	254.7
50°	227.5	229.8	227.5	230.9
52.5°	203.7	206.0	203.7	206.0
55°	182.2	183.4	181.1	183.4
57.5°	161.9	163.0	160.7	163.0
60°	142.6	144.9	142.6	144.9
62.5°	125.6	126.8	126.8	127.9
65°	107.5	112.1	110.9	112.1
67.5°	89.4	92.8	92.8	93.9
70°	69.0	71.3	73.6	74.7
72.5°	48.7	52.1	53.2	54.3
75°	31.7	35.1	35.1	36.2
77.5°	20.4	22.6	22.6	22.6
80°	12.5	13.6	12.5	13.6
82.5°	6.8	6.8	6.8	7.9
85°	3.4	3.4	3.4	3.4
87.5°	1.1	1.1	1.1	1.1
90°	0.0	0.0	0.0	0.0



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















(END OF REPORT)