

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: P136960

Luminaire Tested: **LDSQ6A10D010TE ESQ6A10927 6LSQLWW1LI**

Issue Date: 3/3/2020

Test Information

Test Method: LM-41-14
Report Number: P136960
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P23675)
Test Lab: INNOVATION CENTER P2
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: io LED
Catalog Number: LDSQ6A10D010TE ESQ6A10927 6LSQLWW1LI
Description: PORTFOLIO LED SQUARE 6 INCH 50 DEGREE CUTOFF RECESSED SINGLE WALL
WASH LUMINAIRE
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: 772.4 lumens
Efficiency: N/A
Efficacy: 55.2 lumens/watt
Spacing Criteria (0/90/45): 1.03 / 1.06 / 1.13
Luminous Opening: Rectangular (W 0.5' x L: 0.5' x H: 0')
CIE Type: Direct

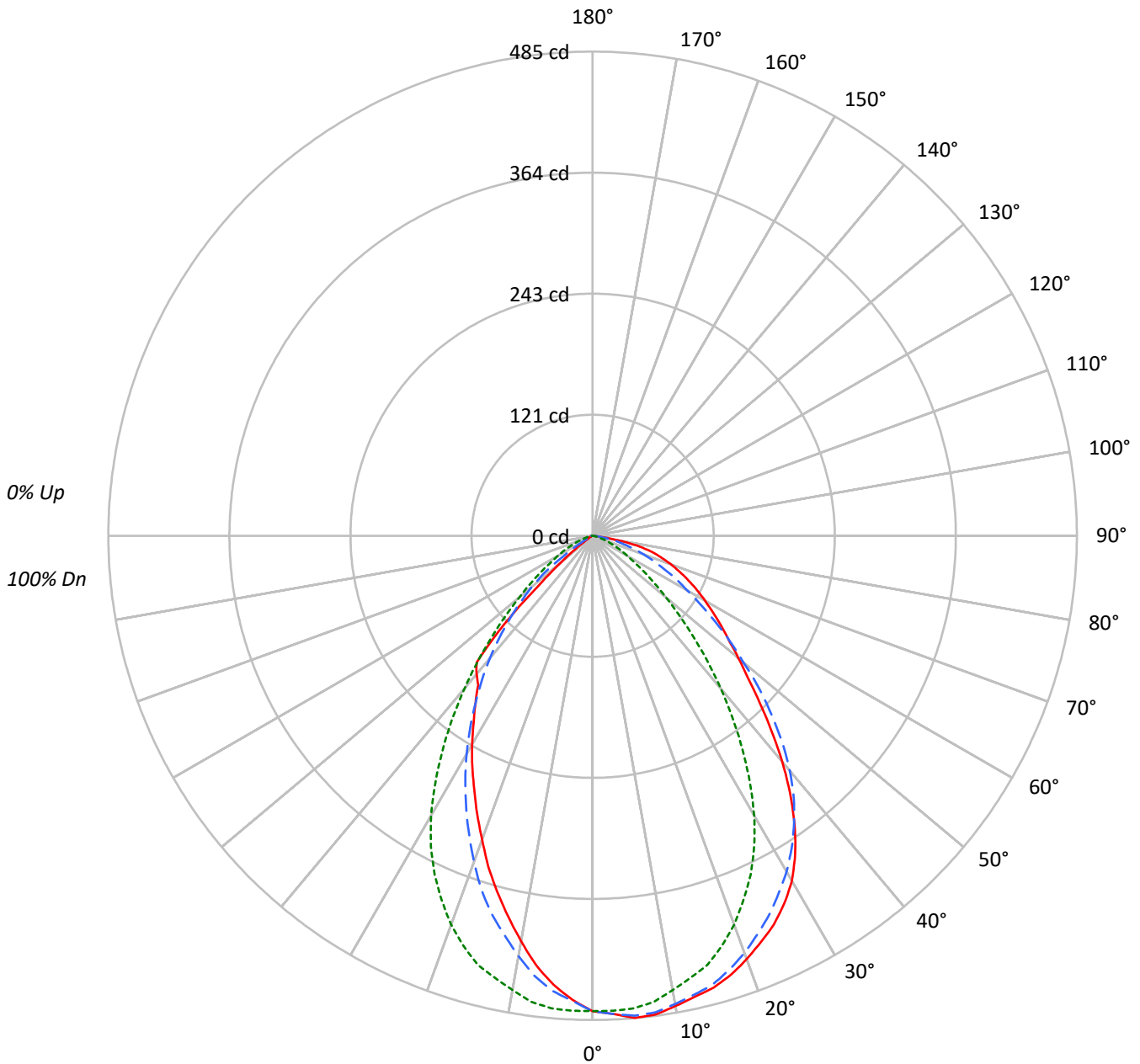
Input Watts (W): 14
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	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	83	78	74	81	76	73	78	75	71	70																			
4	89	80	72	67	87	78	71	66	76	70	65	74	69	65	72	67	64	62																			
5	83	72	65	59	81	71	64	59	69	63	58	68	62	58	66	61	57	55																			
6	78	66	59	53	76	65	58	53	64	57	53	62	57	52	61	56	52	50																			
7	73	61	53	48	71	60	53	48	59	52	48	58	52	47	56	51	47	45																			
8	68	56	49	44	67	56	49	44	55	48	43	53	47	43	52	47	43	41																			
9	64	52	45	40	63	52	45	40	51	44	40	50	44	40	49	43	39	38																			
10	61	49	42	37	59	48	41	37	47	41	37	46	41	37	46	40	36	35																			

AVERAGE LUMINANCE (cd/sqm):

	0°	90°	180°
0°	20503	20503	20503
5°	20953	20534	19501
10°	20911	20199	18026
15°	20883	19827	16448
20°	20673	18992	14822
25°	20409	17791	13316
30°	19852	16083	11997
35°	18544	13766	10749
40°	16603	11190	10162
45°	14425	8628	7581
50°	12760	6377	2753
55°	11778	4714	646
60°	11186	3444	370
65°	10799	2537	224
70°	10499	1762	138
75°	10081	1081	183
80°	6174	545	273
85°	0	0	543



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	44.4	5.8
10°-20°	120.8	15.6
20°-30°	166.5	21.6
30°-40°	171.1	22.1
40°-50°	133.6	17.3
50°-60°	75.2	9.7
60°-70°	40.9	5.3
70°-80°	18.2	2.4
80°-90°	1.7	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°	331.7	42.9
0°-40°	502.8	65.1
0°-60°	711.6	92.1
0°-90°	772.4	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	772.4	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	476	476	476	476	476	
5°	485	483	475	458	451	46
15°	468	465	445	392	369	132
25°	430	419	374	300	280	197
35°	353	352	262	204	204	219
45°	237	253	142	117	124	184
55°	157	149	63	36	9	141
65°	106	79	25	3	2	105
75°	61	31	6	1	1	61
85°	0	1	0	1	1	5
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°	476.2	476.2	476.2	476.2	476.2	476.2	476.2	476.2	476.2	476.2	476.2
2.5°	479.4	482.6	481.5	483.7	484.8	484.8	484.8	480.5	481.5	479.4	479.4
5°	484.8	486.9	485.9	488.0	489.1	489.1	489.1	484.8	485.9	482.6	482.6
7.5°	483.7	485.9	484.8	486.9	489.1	489.1	488.0	484.8	484.8	481.5	481.5
10°	478.3	480.5	480.5	481.5	483.7	483.7	482.6	479.4	479.4	476.2	476.2
12.5°	472.9	476.2	475.1	477.2	478.3	478.3	478.3	474.0	474.0	470.8	470.8
15°	468.5	471.8	470.8	472.9	474.0	474.0	472.9	469.6	468.5	465.3	465.3
17.5°	461.0	464.2	462.0	464.2	466.3	465.3	464.2	461.0	459.9	455.6	455.6
20°	451.2	453.4	452.3	453.4	455.6	455.6	454.5	450.2	449.1	444.8	443.7
22.5°	440.5	442.6	441.5	442.6	444.8	443.7	442.6	438.3	436.0	431.7	430.6
25°	429.6	431.7	430.6	431.7	433.9	432.8	430.6	426.3	424.2	418.8	417.7
27.5°	415.5	417.7	416.6	418.8	420.9	419.9	417.7	413.4	410.2	403.6	402.5
30°	399.3	401.4	400.3	401.4	403.6	403.6	401.4	398.2	394.9	388.5	385.2
32.5°	377.7	380.9	379.8	383.1	385.2	385.2	385.2	380.9	377.7	371.1	366.8
35°	352.8	356.0	354.9	358.2	361.4	363.6	364.6	362.5	360.3	351.7	346.3
37.5°	324.6	327.9	326.8	331.1	335.4	338.7	340.9	339.8	338.7	331.1	324.6
40°	295.4	297.6	297.6	300.8	307.3	311.7	314.9	314.9	313.8	307.3	301.9
42.5°	265.1	268.3	268.3	272.6	278.1	283.5	285.7	287.9	288.9	281.4	276.0
45°	236.9	239.1	239.1	242.4	248.9	254.3	257.5	259.7	260.8	253.2	247.8
47.5°	211.0	213.2	214.3	218.6	221.8	226.2	229.4	230.5	231.6	226.2	219.7
50°	190.5	191.5	192.6	195.9	198.0	201.2	203.4	204.5	204.5	196.9	191.5
52.5°	172.0	173.1	173.1	176.3	178.6	180.8	180.8	180.8	179.7	173.1	164.5
55°	156.9	158.0	158.0	160.2	161.2	162.3	161.2	159.1	156.9	149.4	140.6
57.5°	142.8	143.9	143.9	145.0	145.0	145.0	142.8	140.6	136.3	127.7	120.1
60°	129.9	130.9	130.9	132.0	132.0	130.9	127.7	123.4	118.0	109.3	101.7
62.5°	118.0	119.1	119.1	119.1	119.1	116.9	112.5	107.1	100.6	94.2	86.6
65°	106.0	107.1	106.0	107.1	106.0	102.8	97.4	92.0	85.5	78.9	72.5
67.5°	94.2	95.2	94.2	94.2	92.0	88.8	83.4	77.9	72.5	66.0	59.5
70°	83.4	83.4	82.3	81.2	77.9	74.6	69.2	64.9	59.5	54.1	48.7
72.5°	71.4	72.5	70.3	68.2	64.9	60.6	56.3	52.0	47.6	42.2	37.9
75°	60.6	60.6	57.4	55.2	52.0	48.7	44.3	40.0	35.7	31.4	28.1
77.5°	45.4	45.4	42.2	41.1	37.9	35.7	31.4	28.1	24.9	22.8	19.5
80°	24.9	24.9	23.8	22.8	21.7	20.6	18.4	17.4	15.1	12.9	10.8
82.5°	6.5	6.5	6.5	6.5	6.5	6.5	6.5	6.5	6.5	5.4	4.3
85°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.1	1.1	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):

	55°	60°	65°	70°	75°	80°	85°	90°	95°	100°	105°
0°	476.2	476.2	476.2	476.2	476.2	476.2	476.2	476.2	476.2	476.2	476.2
2.5°	478.3	480.5	477.2	480.5	479.4	472.9	479.4	476.2	474.0	476.2	472.9
5°	481.5	482.6	479.4	482.6	480.5	474.0	478.3	475.1	472.9	474.0	469.6
7.5°	480.5	481.5	478.3	480.5	477.2	470.8	475.1	470.8	467.4	467.4	462.0
10°	475.1	476.2	471.8	474.0	470.8	463.1	467.4	462.0	458.8	456.6	451.2
12.5°	469.6	469.6	466.3	467.4	464.2	456.6	458.8	453.4	449.1	446.9	439.4
15°	463.1	463.1	459.9	461.0	456.6	449.1	451.2	444.8	439.4	436.0	427.4
17.5°	453.4	453.4	449.1	450.2	444.8	437.2	439.4	430.6	425.3	419.9	411.2
20°	440.5	439.4	435.0	435.0	429.6	420.9	423.1	414.5	406.9	401.4	391.7
22.5°	427.4	425.3	420.9	419.9	413.4	403.6	404.7	394.9	387.4	380.9	370.0
25°	412.3	409.1	403.6	401.4	394.9	385.2	385.2	374.5	366.8	358.2	347.4
27.5°	397.1	392.8	385.2	382.0	373.4	362.5	361.4	350.6	342.0	333.3	321.4
30°	378.8	373.4	363.6	359.2	349.5	337.6	334.3	323.5	313.8	304.0	294.3
32.5°	358.2	351.7	340.9	334.3	322.5	309.5	306.2	293.2	284.6	274.8	264.0
35°	336.5	327.9	316.0	307.3	294.3	281.4	274.8	261.9	253.2	243.5	234.8
37.5°	313.8	303.0	288.9	279.2	264.0	252.2	243.5	230.5	221.8	213.2	205.6
40°	290.0	277.1	261.9	248.9	233.7	221.8	212.1	199.1	191.5	184.0	177.4
42.5°	264.0	250.0	233.7	219.7	203.4	191.5	180.8	169.9	162.3	154.8	149.4
45°	235.9	221.8	204.5	190.5	174.2	162.3	152.6	141.7	135.2	128.8	124.5
47.5°	206.6	193.7	176.3	162.3	147.2	136.3	126.6	116.9	110.3	106.0	102.8
50°	178.6	165.6	150.4	136.3	122.3	112.5	103.9	95.2	89.8	85.5	82.3
52.5°	152.6	140.6	126.6	114.7	101.7	92.0	84.4	77.9	72.5	68.2	64.9
55°	129.9	119.1	106.0	95.2	84.4	75.7	69.2	62.8	58.5	53.1	49.8
57.5°	109.3	99.5	88.8	78.9	68.2	61.7	56.3	49.8	45.4	42.2	37.9
60°	93.1	84.4	73.6	64.9	56.3	50.9	45.4	40.0	36.8	32.5	29.2
62.5°	77.9	70.3	61.7	53.1	45.4	41.1	36.8	32.5	28.1	24.9	21.7
65°	64.9	57.4	49.8	42.2	36.8	32.5	29.2	24.9	21.7	18.4	15.1
67.5°	53.1	46.5	38.9	33.5	29.2	26.0	22.8	18.4	16.2	12.9	10.8
70°	42.2	36.8	30.3	26.0	22.8	19.5	16.2	14.0	10.8	8.6	6.5
72.5°	32.5	28.1	22.8	19.5	17.4	14.0	11.9	9.7	7.6	6.5	4.3
75°	23.8	19.5	16.2	14.0	11.9	9.7	7.6	6.5	5.4	3.2	2.2
77.5°	16.2	12.9	10.8	8.6	7.6	6.5	4.3	4.3	3.2	2.2	1.1
80°	9.7	6.5	5.4	4.3	3.2	3.2	2.2	2.2	1.1	1.1	0.0
82.5°	3.2	2.2	1.1	1.1	1.1	1.1	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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CANDELA DISTRIBUTION (continued):

	110°	115°	120°	125°	130°	135°	140°	145°	150°	155°	160°
0°	476.2	476.2	476.2	476.2	476.2	476.2	476.2	476.2	476.2	476.2	476.2
2.5°	468.5	470.8	468.5	470.8	470.8	466.3	467.4	467.4	464.2	464.2	465.3
5°	464.2	464.2	462.0	463.1	463.1	457.7	457.7	457.7	453.4	452.3	452.3
7.5°	456.6	455.6	451.2	451.2	450.2	444.8	442.6	441.5	437.2	436.0	435.0
10°	444.8	442.6	437.2	436.0	433.9	427.4	424.2	422.0	417.7	415.5	415.5
12.5°	431.7	429.6	423.1	420.9	416.6	409.1	405.8	403.6	397.1	393.9	393.9
15°	418.8	415.5	408.0	403.6	399.3	391.7	387.4	384.2	377.7	374.5	373.4
17.5°	401.4	397.1	389.6	384.2	378.8	371.1	366.8	361.4	356.0	352.8	350.6
20°	380.9	375.5	365.7	361.4	356.0	347.4	342.0	338.7	332.2	328.9	327.9
22.5°	359.2	352.8	343.1	337.6	331.1	323.5	320.3	314.9	309.5	307.3	305.1
25°	335.4	330.0	319.2	313.8	307.3	299.7	296.5	292.2	287.9	286.8	283.5
27.5°	309.5	304.0	295.4	288.9	283.5	276.0	272.6	269.4	265.1	264.0	262.9
30°	282.5	277.1	268.3	262.9	257.5	252.2	248.9	245.7	242.4	242.4	242.4
32.5°	254.3	248.9	242.4	236.9	232.6	228.3	226.2	222.9	220.8	221.8	222.9
35°	225.1	221.8	215.4	212.1	208.8	204.5	203.4	201.2	199.1	200.2	200.2
37.5°	196.9	194.8	190.5	187.2	185.1	181.8	181.8	179.7	177.4	179.7	179.7
40°	169.9	167.7	164.5	163.4	161.2	160.2	159.1	159.1	158.0	160.2	164.5
42.5°	143.9	142.8	140.6	139.6	138.5	137.4	138.5	138.5	140.6	148.3	156.9
45°	120.1	120.1	118.0	118.0	116.9	116.9	118.0	121.2	127.7	136.3	137.4
47.5°	98.5	98.5	96.3	96.3	96.3	96.3	100.6	106.0	104.9	100.6	90.9
50°	78.9	77.9	76.8	76.8	76.8	78.9	81.2	74.6	66.0	56.3	50.9
52.5°	61.7	59.5	58.5	58.5	59.5	59.5	53.1	43.3	36.8	33.5	29.2
55°	46.5	44.3	42.2	42.2	41.1	35.7	28.1	24.9	19.5	17.4	15.1
57.5°	33.5	32.5	29.2	27.1	22.8	18.4	15.1	10.8	9.7	7.6	6.5
60°	24.9	22.8	19.5	16.2	12.9	9.7	6.5	5.4	5.4	4.3	4.3
62.5°	18.4	16.2	12.9	9.7	6.5	4.3	4.3	4.3	3.2	3.2	3.2
65°	12.9	10.8	7.6	5.4	3.2	3.2	3.2	3.2	3.2	2.2	2.2
67.5°	8.6	6.5	3.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2
70°	5.4	3.2	1.1	2.2	1.1	1.1	2.2	2.2	2.2	2.2	1.1
72.5°	2.2	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1
75°	1.1	1.1	1.1	1.1	1.1	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°	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1
82.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.1	1.1	1.1
85°	0.0	0.0	0.0	0.0	1.1	1.1	1.1	1.1	1.1	1.1	1.1
87.5°	0.0	0.0	0.0	0.0	0.0	1.1	1.1	0.0	0.0	0.0	1.1
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: LDSQ6A10D010TE ESQ6A10927 6LSQLWW1LI

CANDELA DISTRIBUTION (continued):

	165°	170°	175°	180°
0°	476.2	476.2	476.2	476.2
2.5°	463.1	463.1	464.2	465.3
5°	450.2	451.2	451.2	451.2
7.5°	432.8	432.8	433.9	433.9
10°	411.2	411.2	412.3	412.3
12.5°	390.6	389.6	390.6	390.6
15°	370.0	369.0	369.0	369.0
17.5°	347.4	346.3	346.3	347.4
20°	324.6	323.5	323.5	323.5
22.5°	301.9	301.9	301.9	301.9
25°	281.4	280.3	280.3	280.3
27.5°	260.8	260.8	260.8	260.8
30°	240.2	240.2	241.3	241.3
32.5°	221.8	221.8	221.8	221.8
35°	200.2	202.3	203.4	204.5
37.5°	180.8	184.0	187.2	188.3
40°	168.8	175.3	179.7	180.8
42.5°	163.4	168.8	170.9	172.0
45°	134.2	128.8	125.5	124.5
47.5°	82.3	74.6	70.3	69.2
50°	47.6	44.3	42.2	41.1
52.5°	26.0	22.8	21.7	21.7
55°	12.9	10.8	9.7	8.6
57.5°	5.4	5.4	5.4	5.4
60°	4.3	4.3	4.3	4.3
62.5°	3.2	3.2	3.2	3.2
65°	2.2	2.2	2.2	2.2
67.5°	2.2	2.2	2.2	2.2
70°	1.1	1.1	1.1	1.1
72.5°	1.1	1.1	1.1	1.1
75°	1.1	1.1	1.1	1.1
77.5°	1.1	1.1	1.1	1.1
80°	1.1	1.1	1.1	1.1
82.5°	1.1	1.1	0.0	1.1
85°	1.1	1.1	1.1	1.1
87.5°	0.0	1.1	0.0	1.1
90°	0.0	0.0	0.0	0.0



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













(END OF REPORT)