

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: HALO COMMERCIAL

Report Number: P583522

Luminaire Tested: **HC805D010-HM80520930-81WWBB**

Issue Date: 10/21/2021

**Test Information**

Test Method: LM-41-14  
Report Number: P583522  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G1-2109-368-17)  
Test Lab: COOPER LIGHTING SOLUTIONS  
Issue Date: 10/21/2021  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: HALO COMMERCIAL  
Catalog Number: HC805D010-HM80520930-81WWBB  
Description: HALO COMMERCIAL 8" ROUND, NEW CONSTRUCTION FRAME, WITH 8" WALLWASH DISTRIBUTION, WHITE BAFFLE TRIM  
Light Source: (1) HIGH LUMEN LED 90CRI / 3000K CCT  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 531.5 lumens  
Efficiency: N/A  
Efficacy: 88.6 lumens/watt  
Spacing Criteria (0/90/45): 1.15 / 1.07 / 1.16  
Luminous Opening: Circular (Dia: 0.67' x H: 0')  
CIE Type: Direct

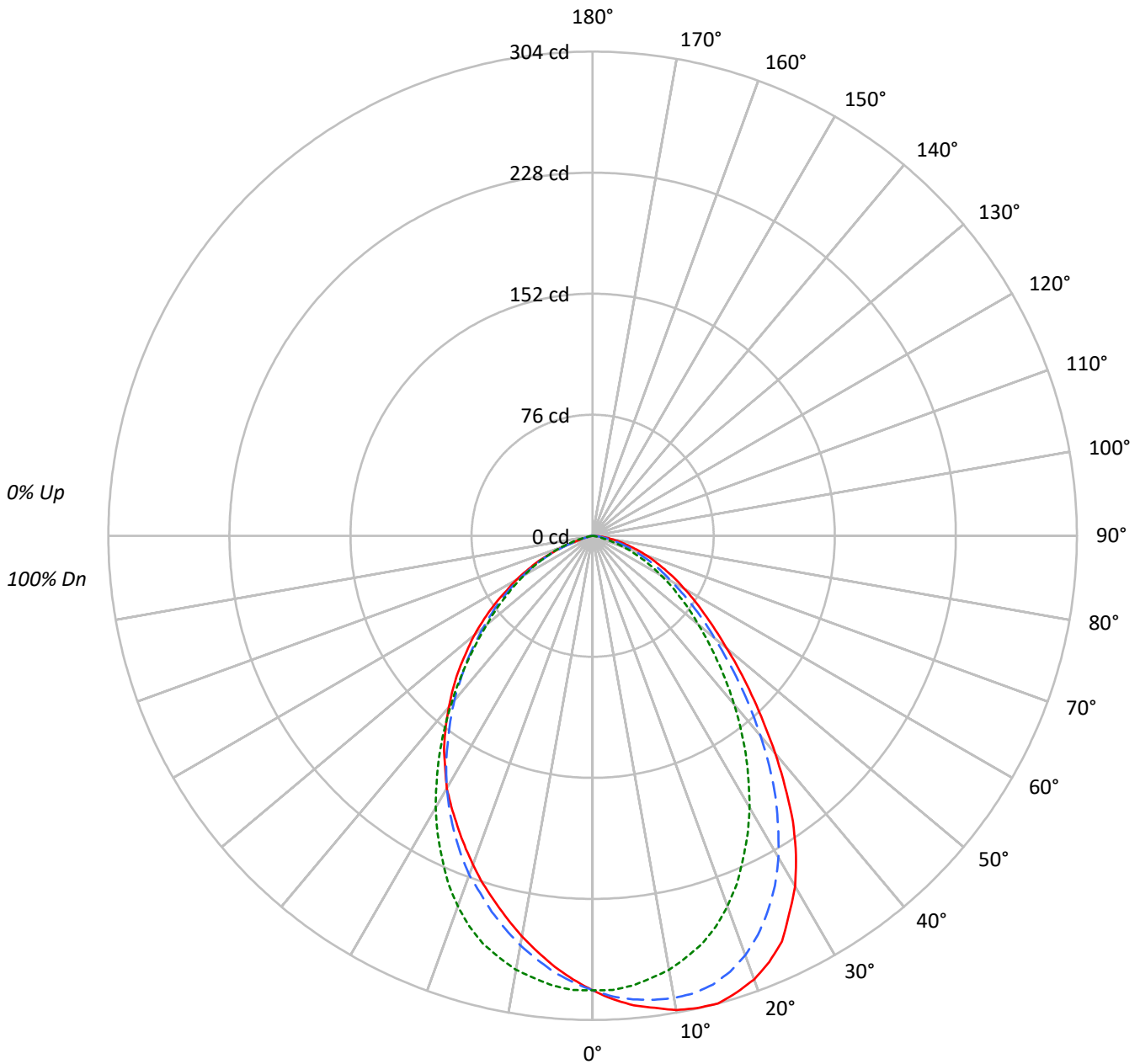
Input Watts (W): 6  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



TEST NUMBER: P583522

CATALOG NUMBER: HC805D010-HM80520930-81WWBB

### 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	107	104	101	108	105	102	99	101	98	96	97	95	93	93	92	90	88				88
2	103	96	90	86	100	94	89	85	91	86	83	88	84	81	85	82	79	77				77
3	95	86	79	74	93	85	78	73	82	76	72	79	74	71	77	73	69	67				67
4	88	78	70	64	86	76	69	64	74	68	63	72	66	62	70	65	61	59				59
5	82	70	63	57	80	69	62	56	67	61	56	65	60	55	64	59	55	53				53
6	76	64	56	51	74	63	56	50	62	55	50	60	54	50	58	53	49	47				47
7	71	59	51	45	69	58	51	45	57	50	45	55	49	45	54	49	44	43				43
8	66	54	46	41	65	53	46	41	52	46	41	51	45	41	50	44	40	39				39
9	62	50	43	37	61	50	42	37	48	42	37	47	41	37	46	41	37	35				35
10	59	47	39	34	57	46	39	34	45	39	34	44	38	34	43	38	34	32				32

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

	0°	90°	180°
0°	8801	8801	8801
5°	9162	8779	8410
10°	9469	8664	7997
15°	9705	8469	7585
20°	9726	8119	7206
25°	9564	7604	6835
30°	9051	7015	6516
35°	8252	6309	6121
40°	7173	5559	5648
45°	6153	4819	5172
50°	5258	4150	4644
55°	4607	3581	4037
60°	4107	3047	3398
65°	3641	2488	2707
70°	3228	1848	1542
75°	2693	965	453
80°	2131	302	89
85°	1521	177	0



TEST NUMBER: P583522

CATALOG NUMBER: HC805D010-HM80520930-81WWBB

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	26.9	5.1
10°-20°	75.4	14.2
20°-30°	106.7	20.1
30°-40°	111.6	21.0
40°-50°	93.1	17.5
50°-60°	66.0	12.4
60°-70°	38.0	7.2
70°-80°	12.2	2.3
80°-90°	1.7	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°	208.9	39.3
0°-40°	320.5	60.3
0°-60°	479.5	90.2
0°-90°	531.5	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	531.5	100.0

**CANDELA DISTRIBUTION:**

	0°	45°	90°	135°	180°	Flux
0°	285	285	285	285	285	
5°	296	292	284	275	272	28
15°	304	292	265	244	238	86
25°	281	260	224	206	201	128
35°	219	200	168	159	163	136
45°	141	130	110	112	119	109
55°	86	77	67	70	75	77
65°	50	42	34	34	37	50
75°	23	17	8	4	4	25
85°	4	2	0	0	0	5
90°	0	0	0	0	0	



TEST NUMBER: P583522

CATALOG NUMBER: HC805D010-HM80520930-81WWBB

**CANDELA DISTRIBUTION (FULL):**

	0°	5°	10°	15°	20°	22.5°	25°	30°	35°	40°	45°
0°	285.4	285.4	285.4	285.4	285.4	285.4	285.4	285.4	285.4	285.4	285.4
2.5°	291.3	290.9	290.4	290.9	290.4	290.9	290.4	290.4	290.0	289.6	289.6
5°	296.0	295.5	295.5	295.5	295.2	294.7	294.7	294.2	293.4	293.0	292.2
7.5°	299.0	299.4	299.4	299.4	298.5	298.5	297.7	296.9	296.0	295.2	293.9
10°	302.4	302.4	302.0	301.5	300.7	300.2	299.8	299.0	297.7	296.0	294.7
12.5°	303.7	303.7	303.2	302.4	302.0	301.5	301.2	299.8	298.2	296.0	294.2
15°	304.0	303.2	302.8	302.4	301.5	300.2	300.2	298.5	296.4	293.9	291.7
17.5°	300.7	301.2	300.2	299.4	298.2	297.2	296.0	294.7	292.2	289.2	287.0
20°	296.4	296.0	295.5	294.2	292.5	292.2	290.9	288.7	286.6	283.2	280.2
22.5°	289.6	289.2	288.4	287.4	285.7	284.9	283.6	281.1	278.1	274.7	271.2
25°	281.1	280.2	278.9	277.2	275.9	275.1	273.4	270.9	267.4	263.6	260.1
27.5°	267.4	268.7	267.9	265.3	264.1	262.3	261.9	258.4	255.4	251.6	247.8
30°	254.2	254.2	252.9	251.6	249.5	248.3	246.5	243.9	241.0	236.3	233.3
32.5°	237.6	237.1	235.4	235.0	233.3	230.8	230.3	227.0	224.0	220.5	216.7
35°	219.2	218.3	216.7	215.3	214.5	213.3	212.0	209.0	206.0	202.5	200.0
37.5°	198.3	198.3	197.9	195.7	194.9	194.0	192.7	189.8	188.0	184.7	182.1
40°	178.2	177.9	176.6	176.2	175.2	174.0	173.2	171.4	168.9	166.4	163.7
42.5°	158.6	159.1	157.4	157.8	156.1	155.3	154.8	152.3	150.9	148.4	146.3
45°	141.1	140.8	139.9	139.5	138.6	137.8	136.9	135.6	133.5	131.0	129.6
47.5°	125.0	123.7	123.7	123.3	122.8	121.1	120.7	119.5	118.1	115.6	113.8
50°	109.6	109.6	109.6	109.2	107.8	107.5	106.7	105.3	104.0	102.3	99.8
52.5°	97.2	97.2	97.2	96.8	95.2	94.7	94.2	92.5	90.9	89.5	87.9
55°	85.7	86.2	85.7	84.9	83.6	83.6	82.4	81.5	79.7	78.5	76.7
57.5°	75.9	75.9	75.1	74.7	73.7	73.4	72.5	71.7	69.5	68.2	66.1
60°	66.6	66.1	66.1	65.2	64.4	63.6	63.1	61.9	61.0	58.9	57.1
62.5°	58.1	58.1	57.1	57.1	55.4	55.4	55.1	53.7	52.4	50.3	49.4
65°	49.9	49.9	49.4	49.1	47.8	47.3	46.9	45.6	44.4	43.1	41.8
67.5°	42.6	42.6	41.8	41.4	40.5	40.1	39.3	38.4	37.1	35.8	34.6
70°	35.8	35.4	35.0	34.6	33.6	33.3	32.4	31.6	30.3	29.4	28.1
72.5°	29.0	29.0	28.6	27.8	27.3	26.8	26.5	25.6	24.3	23.0	22.1
75°	22.6	22.6	22.6	21.8	20.9	20.5	20.5	19.6	18.8	17.5	16.6
77.5°	17.5	17.1	16.6	16.6	15.8	15.3	15.0	14.5	13.2	12.8	12.0
80°	12.0	12.3	12.0	11.5	11.1	10.7	10.7	9.8	9.3	8.5	7.7
82.5°	8.1	7.7	7.7	7.3	7.3	6.8	6.8	6.0	5.5	5.1	4.7
85°	4.3	4.3	3.8	3.8	3.8	3.5	3.5	3.0	3.0	2.5	2.2
87.5°	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	0.8	0.8	0.8
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: P583522

CATALOG NUMBER: HC805D010-HM80520930-81WWBB

**CANDELA DISTRIBUTION (continued):**

	50°	55°	60°	65°	67.5°	70°	75°	80°	85°	90°	95°
0°	285.4	285.4	285.4	285.4	285.4	285.4	285.4	285.4	285.4	285.4	285.4
2.5°	289.2	288.4	287.9	287.9	287.4	287.0	286.6	286.2	285.4	285.4	284.5
5°	291.3	290.4	290.0	288.7	287.9	287.9	286.2	285.7	284.5	283.6	282.7
7.5°	293.0	291.3	290.0	288.7	287.9	287.0	285.4	283.6	281.9	280.2	279.4
10°	293.0	291.3	289.2	287.0	286.2	285.4	283.2	280.6	278.5	276.7	274.7
12.5°	292.2	289.6	287.0	285.4	283.6	282.4	279.7	277.2	274.7	271.2	269.6
15°	289.6	286.2	283.6	280.6	279.4	277.2	275.1	271.2	268.2	265.3	263.1
17.5°	284.5	280.2	277.2	274.2	272.1	270.9	267.4	264.1	260.6	257.2	254.6
20°	276.7	272.9	269.6	265.7	264.1	262.3	258.1	254.6	251.3	247.4	244.8
22.5°	267.4	263.6	258.9	255.9	253.3	251.3	247.4	243.5	240.1	236.6	233.3
25°	255.9	252.1	247.8	243.1	241.4	239.3	235.0	231.1	227.3	223.5	220.5
27.5°	243.5	238.4	235.0	229.8	228.1	226.0	221.3	217.1	213.7	210.7	207.3
30°	228.6	224.8	220.1	215.3	213.7	211.5	207.7	203.8	200.5	197.0	193.7
32.5°	212.3	208.5	203.8	200.5	197.9	196.2	192.4	188.9	185.5	182.1	179.1
35°	195.4	191.0	187.7	184.2	182.1	180.0	176.2	173.2	170.6	167.6	164.6
37.5°	177.9	174.9	171.4	167.6	165.4	163.7	160.8	157.4	155.3	152.7	150.6
40°	160.8	157.4	154.4	150.9	149.3	147.9	145.0	142.4	140.3	138.1	136.9
42.5°	143.3	140.3	137.3	135.1	133.9	132.6	130.5	127.5	126.3	124.1	122.8
45°	127.1	124.5	122.5	119.5	118.6	117.7	115.2	113.0	111.8	110.5	109.6
47.5°	111.8	110.0	107.5	105.8	104.5	103.7	102.0	100.2	99.0	98.0	97.2
50°	98.5	96.4	94.7	93.0	92.2	90.9	89.2	88.3	87.4	86.5	86.5
52.5°	86.2	84.0	82.4	81.0	80.2	79.4	78.0	77.6	76.7	76.7	76.4
55°	74.7	73.4	71.7	69.9	69.5	69.1	68.2	67.4	66.9	66.6	66.9
57.5°	64.9	63.6	61.9	60.6	60.1	59.7	59.3	58.4	58.1	58.1	58.1
60°	55.9	54.6	53.3	52.1	52.1	51.2	50.8	50.3	49.9	49.4	49.4
62.5°	47.8	46.4	45.2	44.4	43.9	43.5	42.6	42.3	41.8	41.8	41.4
65°	40.5	38.8	38.4	37.1	36.6	36.3	35.8	35.0	34.6	34.1	33.6
67.5°	33.3	32.4	31.1	30.3	29.8	29.4	29.0	28.1	27.8	27.3	26.5
70°	26.8	26.0	25.1	24.3	23.9	23.5	22.6	21.8	21.3	20.5	19.2
72.5°	20.9	20.0	19.2	18.3	18.0	17.5	16.6	15.8	15.0	14.1	13.2
75°	15.8	15.0	13.6	12.8	12.3	12.3	11.1	10.3	9.3	8.1	7.3
77.5°	11.1	9.8	9.3	8.5	8.1	7.3	6.3	5.5	4.7	4.3	3.5
80°	7.3	6.3	5.5	5.1	4.7	4.3	3.8	3.0	2.2	1.7	1.3
82.5°	4.3	3.8	3.5	3.0	2.5	2.2	1.7	1.7	1.3	0.8	0.5
85°	2.2	1.7	1.3	1.3	0.8	0.8	0.8	0.5	0.5	0.5	0.5
87.5°	0.8	0.5	0.5	0.5	0.5	0.5	0.5	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: P583522

CATALOG NUMBER: HC805D010-HM80520930-81WWBB

**CANDELA DISTRIBUTION (continued):**

	100°	105°	110°	112.5°	115°	120°	125°	130°	135°	140°	145°
0°	285.4	285.4	285.4	285.4	285.4	285.4	285.4	285.4	285.4	285.4	285.4
2.5°	284.0	283.6	283.2	282.7	282.7	281.9	281.9	281.5	280.6	280.2	280.2
5°	281.5	280.2	279.4	278.9	278.5	277.2	276.7	275.9	275.1	274.2	273.8
7.5°	277.7	275.5	274.7	274.2	272.9	271.7	270.9	269.6	268.2	266.9	266.6
10°	272.9	270.9	268.7	267.9	266.6	265.7	264.1	262.3	261.1	259.7	258.4
12.5°	266.9	264.4	262.3	261.4	260.1	258.4	255.9	255.1	252.9	252.1	250.4
15°	260.1	257.2	255.1	253.8	252.4	249.9	248.3	246.5	244.4	243.5	241.8
17.5°	251.6	248.3	246.1	244.8	243.9	241.8	239.3	237.1	235.0	234.1	232.8
20°	241.4	239.3	236.3	235.0	234.1	231.6	229.0	228.1	226.5	224.8	223.5
22.5°	229.8	227.8	224.8	223.5	223.0	221.0	218.8	217.5	216.2	215.0	213.7
25°	218.0	215.3	212.8	212.0	211.2	209.4	207.7	206.8	205.5	204.7	203.8
27.5°	205.2	202.5	200.5	199.2	198.3	197.0	196.2	195.4	194.5	193.7	193.2
30°	191.5	188.9	187.2	186.4	185.5	185.1	183.9	183.4	183.0	182.1	182.5
32.5°	177.9	175.7	174.0	172.7	172.7	171.9	171.4	171.4	171.1	171.1	171.1
35°	162.9	161.6	160.4	159.9	159.6	159.1	158.6	159.1	158.6	159.1	159.6
37.5°	149.3	147.9	147.1	146.8	146.3	146.8	146.3	146.3	146.8	147.6	147.9
40°	135.1	134.3	133.5	133.9	133.5	133.5	133.5	134.8	135.1	135.6	136.1
42.5°	122.0	121.1	120.7	120.7	121.1	120.7	121.5	122.0	122.8	124.1	125.0
45°	109.2	108.8	108.8	109.2	108.8	109.6	109.6	110.5	111.8	112.6	113.5
47.5°	97.2	97.2	97.2	97.7	97.7	98.0	99.0	99.4	100.2	101.0	102.0
50°	86.2	86.5	87.0	87.0	87.0	87.9	88.7	89.2	89.5	90.0	91.2
52.5°	76.4	76.7	76.7	77.2	77.6	78.0	78.5	79.4	79.7	80.6	81.0
55°	66.9	66.9	67.9	68.2	68.2	68.2	69.1	69.1	69.9	70.4	71.2
57.5°	58.1	58.4	58.4	58.9	58.9	59.3	59.7	60.1	60.6	61.0	61.4
60°	49.4	49.4	49.4	49.9	50.3	50.8	50.3	51.2	51.2	52.1	52.4
62.5°	41.4	41.8	41.8	41.8	41.8	41.8	41.8	42.3	42.6	43.1	43.5
65°	33.6	33.6	33.6	33.3	33.6	33.3	33.6	34.1	34.1	34.6	35.0
67.5°	26.0	26.0	25.1	25.1	25.6	25.6	25.6	25.6	25.1	26.0	26.0
70°	18.8	18.3	18.0	17.5	17.5	17.1	17.1	16.6	16.6	16.6	16.6
72.5°	12.3	11.5	10.7	10.3	9.8	9.8	9.0	8.5	9.0	9.0	9.0
75°	6.3	5.5	5.1	4.7	4.3	4.3	3.8	3.8	3.8	3.8	3.8
77.5°	2.5	2.2	1.7	1.7	1.3	1.3	1.3	1.3	1.3	1.3	1.3
80°	0.8	0.8	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
82.5°	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
85°	0.5	0.0	0.0	0.5	0.0	0.5	0.5	0.5	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





TEST NUMBER: P583522

CATALOG NUMBER: HC805D010-HM80520930-81WWBB

**CANDELA DISTRIBUTION (continued):**

	150°	155°	157.5°	160°	165°	170°	175°	180°
0°	285.4	285.4	285.4	285.4	285.4	285.4	285.4	285.4
2.5°	279.7	279.7	279.4	279.7	278.9	279.4	278.9	278.9
5°	273.4	272.6	272.6	272.6	272.1	272.1	271.7	271.7
7.5°	265.7	265.3	264.9	264.4	264.1	263.6	263.6	263.6
10°	258.1	257.2	257.2	256.8	255.9	255.4	255.4	255.4
12.5°	249.1	248.6	248.3	248.3	246.5	246.9	246.5	246.5
15°	240.6	240.1	240.1	238.8	238.0	238.0	238.0	237.6
17.5°	231.6	231.1	230.8	229.8	229.0	229.0	228.6	229.0
20°	222.2	221.8	221.0	221.0	220.5	220.1	219.2	219.6
22.5°	212.8	212.0	211.5	211.5	211.2	211.2	210.3	210.3
25°	203.0	202.5	202.2	202.5	201.7	201.7	200.9	200.9
27.5°	192.7	192.4	192.4	192.4	191.9	192.4	191.9	191.9
30°	182.5	182.5	182.1	182.1	182.5	182.1	182.5	183.0
32.5°	171.4	171.4	171.9	171.9	172.2	172.2	172.2	172.2
35°	159.9	160.8	160.8	161.2	161.6	162.1	162.1	162.6
37.5°	149.3	149.7	150.1	150.6	151.4	151.4	151.4	151.4
40°	137.8	138.1	139.1	138.6	140.3	140.8	140.3	140.3
42.5°	125.8	126.6	127.1	128.0	128.3	129.3	129.6	129.6
45°	114.7	115.2	116.0	116.8	117.3	118.6	118.6	118.6
47.5°	103.2	104.0	104.5	105.3	105.8	107.0	107.5	107.0
50°	92.2	93.0	93.8	93.8	95.2	95.5	96.4	96.8
52.5°	81.5	81.9	82.7	83.2	84.0	84.9	85.3	85.7
55°	71.2	71.7	72.5	72.5	73.7	74.2	75.1	75.1
57.5°	61.9	62.2	63.1	62.7	63.6	64.4	64.4	63.9
60°	52.9	52.9	52.9	53.7	54.2	54.6	55.1	55.1
62.5°	43.5	44.4	44.8	44.8	45.2	45.6	45.6	45.2
65°	35.0	35.8	36.3	36.3	36.6	36.6	36.6	37.1
67.5°	26.5	26.5	26.5	26.8	26.5	26.5	26.5	26.5
70°	16.6	16.6	16.6	16.6	16.2	16.6	16.6	17.1
72.5°	9.0	9.0	9.0	9.0	9.0	9.0	9.0	9.0
75°	3.8	3.8	3.8	4.3	3.8	3.8	3.8	3.8
77.5°	1.7	1.3	1.7	1.7	1.3	1.3	1.3	1.3
80°	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
82.5°	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
85°	0.0	0.5	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
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0



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















(END OF REPORT)