

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: PORTFOLIO

Report Number: P252146

Luminaire Tested: **LE_6B15D010 EC6B10209024 6LBSW1LI**

Issue Date: 3/3/2020

Test Information

Test Method: LM-41-14
Report Number: P252146
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G1-1712-453-1)
Test Lab: INNOVATION CENTER(G1)
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: PORTFOLIO
Catalog Number: LE_6B15D010 EC6B10209024 6LBSW1LI
Description: PORTFOLIO 6 INCH SINGLE WALLWASH RECESSED DOWNLIGHT, WITH SPECULAR CLEAR TRIM
Light Source: (1) HIGH LUMEN LED 90CRI / 2400K CCT
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 1686.2 lumens
Efficiency: N/A
Efficacy: 117.1 lumens/watt
Spacing Criteria (0/90/45): 1.26 / 1.29 / 1.21
Luminous Opening: Circular (Dia: 0.46' x H: 0')
CIE Type: Direct

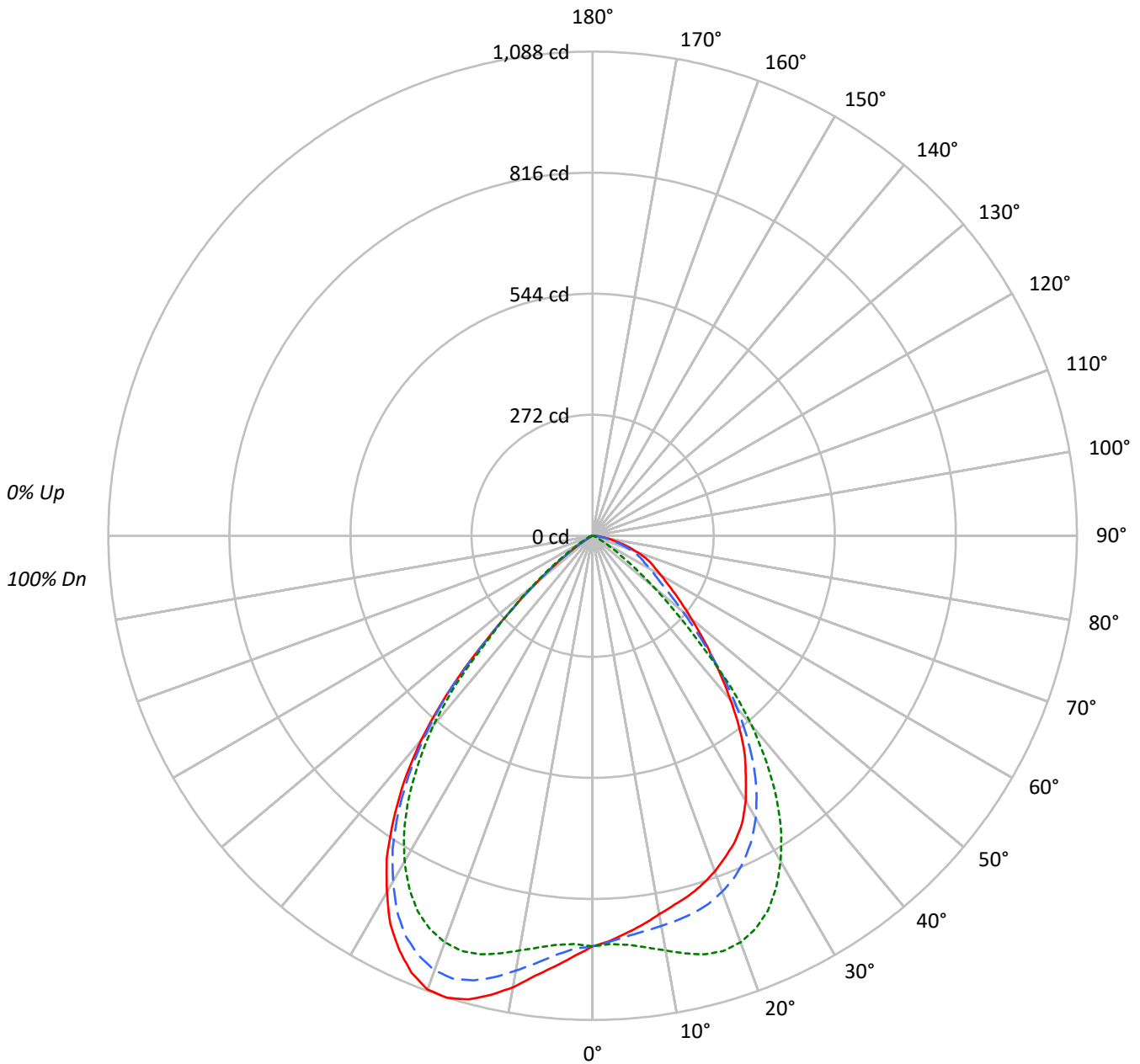
Input Watts (W): 14.4
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	112	108	105	103	109	106	103	101	102	100	98	98	96	95	95	93	92	90								
2	105	98	93	89	102	97	92	88	93	89	86	90	87	84	87	85	82	80								
3	98	89	83	78	95	88	82	78	85	80	76	83	78	75	80	77	74	72								
4	91	82	75	69	89	80	74	69	78	72	68	76	71	67	74	70	66	65								
5	85	75	67	62	83	74	67	62	72	66	61	70	65	61	68	64	60	58								
6	80	69	61	56	78	68	61	56	66	60	55	64	59	55	63	58	54	53								
7	74	63	56	51	73	62	55	50	61	55	50	60	54	50	58	53	50	48								
8	70	58	51	46	69	58	51	46	57	50	46	55	50	46	54	49	45	44								
9	66	54	47	42	64	54	47	42	53	46	42	52	46	42	51	45	42	40								
10	62	50	43	39	61	50	43	39	49	43	39	48	43	39	47	42	38	37								

AVERAGE LUMINANCE (cd/sqm):

	0°	90°	180°
0°	60184	60184	60184
5°	58620	60414	63591
10°	57198	62696	68241
15°	56533	65759	72851
20°	55723	67477	75315
25°	54536	66982	73965
30°	51822	63649	69623
35°	47404	57384	62162
40°	41007	47395	51006
45°	34590	31084	33363
50°	29353	17985	16909
55°	25479	8633	6529
60°	23017	4032	1618
65°	22322	2316	540
70°	20029	1869	496
75°	16435	1311	227
80°	12248	676	0
85°	10555	0	0



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	89.1	5.3
10°-20°	271.6	16.1
20°-30°	414.9	24.6
30°-40°	434.0	25.7
40°-50°	281.5	16.7
50°-60°	111.8	6.6
60°-70°	53.0	3.1
70°-80°	25.2	1.5
80°-90°	5.1	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°	775.6	46.0
0°-40°	1209.6	71.7
0°-60°	1602.9	95.1
0°-90°	1686.2	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1686.2	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	922	922	922	922	922	
5°	895	903	922	946	971	85
15°	837	878	974	1034	1079	236
25°	758	805	930	993	1028	347
35°	595	632	720	763	780	368
45°	375	371	337	357	362	292
55°	224	190	76	59	57	203
65°	145	120	15	4	4	141
75°	65	53	5	2	1	70
85°	14	9	0	0	0	16
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	22.5°	25°	30°	35°	40°	45°
0°	922.5	922.5	922.5	922.5	922.5	922.5	922.5	922.5	922.5	922.5	922.5
2.5°	911.0	912.8	903.1	900.5	907.5	910.1	911.0	908.4	909.2	912.8	912.8
5°	895.1	896.9	888.1	885.5	892.5	894.2	896.9	896.0	898.8	904.0	903.1
7.5°	880.1	882.9	873.1	869.6	878.4	882.9	884.6	884.6	888.1	895.1	896.0
10°	863.4	867.0	858.1	856.4	866.1	870.5	871.4	873.1	878.4	888.1	889.9
12.5°	849.2	852.9	846.6	844.0	854.6	859.0	860.8	864.2	870.5	882.9	884.6
15°	837.0	839.6	832.5	830.8	841.4	846.6	847.5	852.9	860.8	874.9	877.5
17.5°	821.1	822.9	817.5	815.8	826.4	831.6	832.5	838.8	848.4	862.5	867.0
20°	802.6	804.4	799.0	797.2	807.9	814.0	814.9	820.2	831.6	846.6	851.1
22.5°	780.5	784.0	777.9	776.1	786.8	792.0	794.6	799.0	810.5	825.5	831.6
25°	757.6	757.6	753.1	752.2	762.0	768.1	767.2	773.5	784.9	799.9	805.2
27.5°	727.6	726.8	722.2	721.4	732.0	737.2	735.5	741.8	752.2	767.2	772.6
30°	687.9	689.6	683.5	681.8	690.5	699.4	698.5	704.6	715.2	729.4	732.9
32.5°	640.2	642.0	641.1	638.5	646.5	650.9	653.5	657.9	666.8	681.8	685.2
35°	595.2	592.6	589.1	589.1	597.1	604.1	601.5	606.8	615.6	630.6	631.5
37.5°	539.8	538.9	537.1	535.4	544.1	545.9	546.8	550.4	558.2	570.6	568.9
40°	481.5	482.4	481.5	478.0	483.2	490.4	489.5	491.2	498.2	507.1	504.5
42.5°	426.9	426.9	426.9	423.4	429.5	433.0	434.8	433.9	435.6	443.6	440.1
45°	374.9	375.8	374.9	374.0	374.9	376.6	374.9	374.0	374.0	376.6	371.2
47.5°	329.9	329.9	327.2	324.5	327.2	328.1	325.4	322.8	321.9	321.0	312.2
50°	289.2	288.4	287.5	283.1	285.8	286.6	283.1	281.4	277.8	273.4	262.9
52.5°	254.0	253.1	252.2	247.9	249.6	250.5	247.0	243.4	239.0	235.5	222.2
55°	224.0	223.1	223.1	220.5	218.8	220.5	217.0	214.2	208.1	203.8	190.5
57.5°	198.4	198.4	196.6	194.0	194.9	194.9	191.4	187.9	182.5	177.2	166.6
60°	176.4	176.4	176.4	173.8	173.8	173.8	172.0	168.5	164.0	158.8	148.1
62.5°	158.8	158.8	157.9	155.2	156.1	156.1	154.4	150.8	146.4	142.9	132.2
65°	144.6	144.6	144.6	142.0	142.0	142.9	141.1	137.6	134.0	129.6	120.0
67.5°	127.0	126.1	126.1	124.4	125.2	126.1	124.4	121.8	117.2	114.6	105.9
70°	105.0	105.9	106.8	104.1	105.0	105.0	104.1	101.4	98.8	96.1	88.2
72.5°	85.5	85.5	84.6	83.8	83.8	84.6	82.9	80.2	78.5	76.8	70.5
75°	65.2	64.4	65.2	63.5	63.5	63.5	61.8	60.9	60.0	57.4	52.9
77.5°	47.6	46.8	46.8	45.0	45.9	45.9	45.0	43.2	41.5	40.6	37.0
80°	32.6	32.6	32.6	31.8	31.8	30.9	30.9	30.0	28.2	27.4	25.6
82.5°	22.0	22.0	22.0	21.1	21.1	21.1	20.2	19.4	18.5	17.6	15.9
85°	14.1	14.1	14.1	13.2	13.2	13.2	12.4	12.4	11.5	10.6	8.9
87.5°	7.9	7.9	7.9	7.0	7.0	7.0	7.0	7.0	6.1	5.2	4.4
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):

	50°	55°	60°	65°	67.5°	70°	75°	80°	85°	90°	95°
0°	922.5	922.5	922.5	922.5	922.5	922.5	922.5	922.5	922.5	922.5	922.5
2.5°	919.0	906.6	914.6	914.6	911.9	919.0	923.4	926.9	926.0	918.1	917.2
5°	911.9	901.4	910.1	911.0	908.4	918.1	924.2	928.6	929.6	922.5	923.4
7.5°	906.6	897.9	909.2	912.8	911.9	920.8	927.8	934.9	938.4	933.1	934.0
10°	904.0	896.9	909.2	914.6	915.5	925.1	935.8	945.5	949.9	946.4	949.0
12.5°	900.5	896.0	910.1	918.1	921.6	931.4	944.5	956.0	963.1	961.4	966.6
15°	896.9	893.4	910.1	921.6	926.0	934.9	949.9	966.6	974.5	973.6	980.8
17.5°	888.1	887.2	904.9	917.2	923.4	934.0	948.1	968.4	976.2	978.1	986.9
20°	874.0	874.0	893.4	906.6	913.8	923.4	941.0	960.4	970.1	971.9	981.6
22.5°	854.6	856.4	874.9	888.1	898.8	905.8	924.2	944.5	953.4	956.0	966.6
25°	829.0	830.8	848.4	861.6	873.1	881.0	898.8	917.2	927.8	930.5	938.4
27.5°	795.5	799.0	815.8	829.0	838.8	844.0	862.5	882.0	889.9	892.5	900.5
30°	756.8	757.6	774.4	785.8	795.5	799.9	815.8	836.1	842.2	844.9	856.4
32.5°	709.1	708.2	724.1	734.6	742.6	747.9	764.6	777.9	784.0	788.5	794.6
35°	651.8	650.9	662.4	674.6	680.9	682.6	699.4	713.5	717.0	720.5	728.5
37.5°	587.4	587.4	597.1	603.2	610.2	613.0	620.9	636.8	642.9	642.0	648.2
40°	519.5	515.9	523.0	529.1	530.9	531.8	539.8	552.1	556.5	556.5	560.9
42.5°	448.0	442.8	443.6	447.1	448.9	442.8	448.0	456.0	453.4	456.9	457.8
45°	372.1	364.2	360.8	352.8	354.5	348.4	344.9	346.6	345.8	336.9	338.6
47.5°	310.5	296.4	290.1	278.8	276.0	269.0	264.6	256.6	249.6	249.6	245.1
50°	258.4	244.2	232.0	218.8	214.2	208.1	198.4	187.9	182.5	177.2	172.9
52.5°	217.0	202.0	187.0	172.9	166.6	158.8	145.5	134.9	125.2	120.0	114.6
55°	183.5	166.6	150.8	135.9	127.9	120.0	106.8	94.4	82.9	75.9	71.4
57.5°	157.9	142.0	125.2	109.4	102.2	93.5	79.4	66.1	55.5	47.6	43.2
60°	139.4	123.5	108.5	91.8	84.6	75.9	60.9	48.5	37.9	30.9	25.6
62.5°	123.5	109.4	93.5	78.5	71.4	62.6	48.5	36.1	26.5	19.4	15.0
65°	112.0	97.9	84.6	69.6	63.5	54.6	41.5	30.0	21.1	15.0	10.6
67.5°	98.8	86.4	73.2	60.9	54.6	47.6	35.2	25.6	17.6	12.4	8.9
70°	82.9	73.2	61.8	50.2	45.9	39.6	29.1	21.1	14.1	9.8	7.0
72.5°	66.1	58.2	49.4	40.6	37.0	30.9	23.8	16.8	10.6	7.0	5.2
75°	50.2	44.1	37.0	30.9	27.4	23.8	17.6	12.4	7.9	5.2	3.5
77.5°	34.4	31.8	26.5	21.1	19.4	16.8	11.5	7.9	5.2	3.5	1.8
80°	23.8	21.1	17.6	14.1	12.4	10.6	7.0	5.2	2.6	1.8	0.9
82.5°	15.0	12.4	10.6	8.9	7.9	6.1	4.4	2.6	1.8	0.9	0.9
85°	7.9	7.0	6.1	4.4	4.4	3.5	2.6	1.8	0.9	0.0	0.0
87.5°	4.4	3.5	2.6	1.8	1.8	0.9	0.9	0.9	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):

	100°	105°	110°	112.5°	115°	120°	125°	130°	135°	140°	145°
0°	922.5	922.5	922.5	922.5	922.5	922.5	922.5	922.5	922.5	922.5	922.5
2.5°	927.8	927.8	926.9	937.5	925.1	937.5	931.4	937.5	928.6	927.8	928.6
5°	934.9	937.5	938.4	948.1	936.6	951.6	946.4	951.6	945.5	947.2	949.9
7.5°	949.0	953.4	952.5	964.9	953.4	970.1	966.6	974.5	968.4	970.1	973.6
10°	964.9	970.1	971.0	983.4	972.8	993.1	988.6	997.5	992.1	994.9	999.2
12.5°	983.4	989.5	990.4	1004.5	993.1	1014.2	1011.6	1020.4	1016.0	1018.6	1023.9
15°	997.5	1006.2	1008.0	1022.1	1009.9	1031.9	1030.1	1041.6	1034.5	1038.9	1043.4
17.5°	1004.5	1012.5	1016.0	1029.2	1018.6	1040.8	1038.9	1048.6	1043.4	1047.8	1053.0
20°	1000.1	1009.9	1012.5	1025.8	1015.1	1037.1	1034.5	1044.2	1038.9	1042.5	1047.8
22.5°	984.2	994.0	997.5	1009.9	1000.1	1020.4	1019.5	1028.4	1021.2	1025.8	1030.1
25°	956.0	966.6	968.4	979.9	969.2	990.4	988.6	998.4	993.1	995.8	1001.9
27.5°	915.5	927.8	930.5	940.1	932.2	949.9	949.9	957.8	951.6	951.6	957.8
30°	867.0	879.2	881.0	889.0	882.0	897.9	898.8	906.6	896.9	902.2	903.1
32.5°	807.9	815.8	821.1	828.1	817.5	837.9	835.2	841.4	836.1	836.1	840.5
35°	736.4	746.1	748.8	757.6	748.8	764.6	764.6	768.1	762.9	762.9	769.9
37.5°	658.8	665.9	666.8	675.6	668.5	681.8	680.9	683.5	678.2	681.8	681.8
40°	568.0	573.2	575.0	579.4	578.5	588.2	587.4	589.1	586.5	587.4	589.1
42.5°	462.1	469.2	472.8	476.2	471.0	484.1	481.5	484.1	483.2	484.1	486.9
45°	340.4	345.8	348.4	349.2	347.5	355.4	361.6	356.2	357.1	355.4	359.0
47.5°	246.0	247.0	245.1	250.5	246.0	249.6	251.4	252.2	247.0	246.0	249.6
50°	168.5	172.9	166.6	169.4	168.5	172.0	170.2	171.1	165.8	168.5	166.6
52.5°	112.0	111.1	109.4	110.2	108.5	108.5	108.5	110.2	106.8	105.0	103.1
55°	67.9	66.1	62.6	61.8	61.8	62.6	60.9	59.1	59.1	58.2	58.2
57.5°	39.6	37.0	35.2	34.4	32.6	31.8	30.9	30.9	29.1	29.1	29.1
60°	22.0	19.4	17.6	15.9	15.9	15.0	14.1	13.2	13.2	13.2	12.4
62.5°	11.5	9.8	7.9	7.0	7.0	6.1	5.2	5.2	5.2	5.2	4.4
65°	7.9	6.1	5.2	4.4	4.4	3.5	3.5	3.5	3.5	3.5	3.5
67.5°	6.1	5.2	4.4	3.5	3.5	3.5	2.6	2.6	2.6	2.6	2.6
70°	5.2	3.5	3.5	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6
72.5°	3.5	3.5	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6
75°	2.6	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8
77.5°	0.9	0.9	0.9	0.9	0.9	0.9	0.0	0.0	0.0	0.0	0.0
80°	0.9	0.0	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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CANDELA DISTRIBUTION (continued):

	150°	155°	157.5°	160°	165°	170°	175°	180°
0°	922.5	922.5	922.5	922.5	922.5	922.5	922.5	922.5
2.5°	936.6	935.8	936.6	938.4	934.9	945.5	940.1	945.5
5°	956.9	957.8	958.6	961.4	956.9	970.1	963.1	971.0
7.5°	983.4	984.2	985.1	987.8	985.1	998.4	990.4	997.5
10°	1010.8	1012.5	1012.5	1016.9	1014.2	1026.6	1021.2	1030.1
12.5°	1036.2	1038.0	1039.8	1042.5	1040.8	1053.9	1049.5	1056.6
15°	1056.6	1060.1	1061.0	1064.5	1062.8	1076.9	1071.5	1078.6
17.5°	1066.2	1069.8	1069.8	1074.2	1072.5	1087.4	1080.4	1088.4
20°	1061.0	1063.6	1064.5	1068.9	1067.1	1082.1	1075.1	1084.8
22.5°	1044.2	1045.1	1046.0	1050.4	1049.5	1062.8	1056.6	1062.8
25°	1013.4	1016.0	1015.1	1018.6	1018.6	1029.2	1022.1	1027.5
27.5°	969.2	971.9	971.9	976.2	972.8	983.4	976.2	984.2
30°	915.5	918.1	916.4	919.9	916.4	926.9	921.6	924.2
32.5°	851.1	851.1	852.0	852.9	851.1	860.8	855.5	860.8
35°	774.4	776.1	777.0	777.9	776.1	783.1	777.0	780.5
37.5°	687.9	692.4	691.5	692.4	689.6	698.5	693.2	695.0
40°	595.2	595.2	594.4	596.2	593.5	600.6	597.1	598.9
42.5°	487.8	490.4	486.9	491.2	484.1	493.9	490.4	487.8
45°	366.0	362.5	361.6	362.5	359.9	360.8	363.4	361.6
47.5°	249.6	249.6	247.9	245.1	248.8	249.6	246.0	246.0
50°	167.6	167.6	165.8	164.9	166.6	165.8	164.0	166.6
52.5°	106.8	103.1	103.1	105.0	103.1	101.4	104.1	102.2
55°	58.2	56.5	56.5	58.2	56.5	56.5	55.5	57.4
57.5°	28.2	29.1	28.2	28.2	28.2	28.2	27.4	28.2
60°	12.4	12.4	12.4	12.4	12.4	12.4	12.4	12.4
62.5°	5.2	5.2	4.4	4.4	4.4	4.4	4.4	4.4
65°	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
67.5°	2.6	2.6	2.6	2.6	2.6	3.5	2.6	2.6
70°	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6
72.5°	2.6	2.6	3.5	3.5	3.5	3.5	3.5	3.5
75°	1.8	1.8	1.8	0.9	0.9	0.9	0.9	0.9
77.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
80°	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
85°	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
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)