

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: P252137

Luminaire Tested: **LE\_6B10D010 EC6B10209040 6LBSW1LI**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-41-14  
Report Number: P252137  
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\_6B10D010 EC6B10209040 6LBSW1LI  
Description: PORTFOLIO 6 INCH SINGLE WALLWASH RECESSED DOWNLIGHT, WITH SPECULAR CLEAR TRIM  
Light Source: (1) HIGH LUMEN LED 90CRI / 4000K CCT  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 1467.5 lumens  
Efficiency: N/A  
Efficacy: 146.7 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

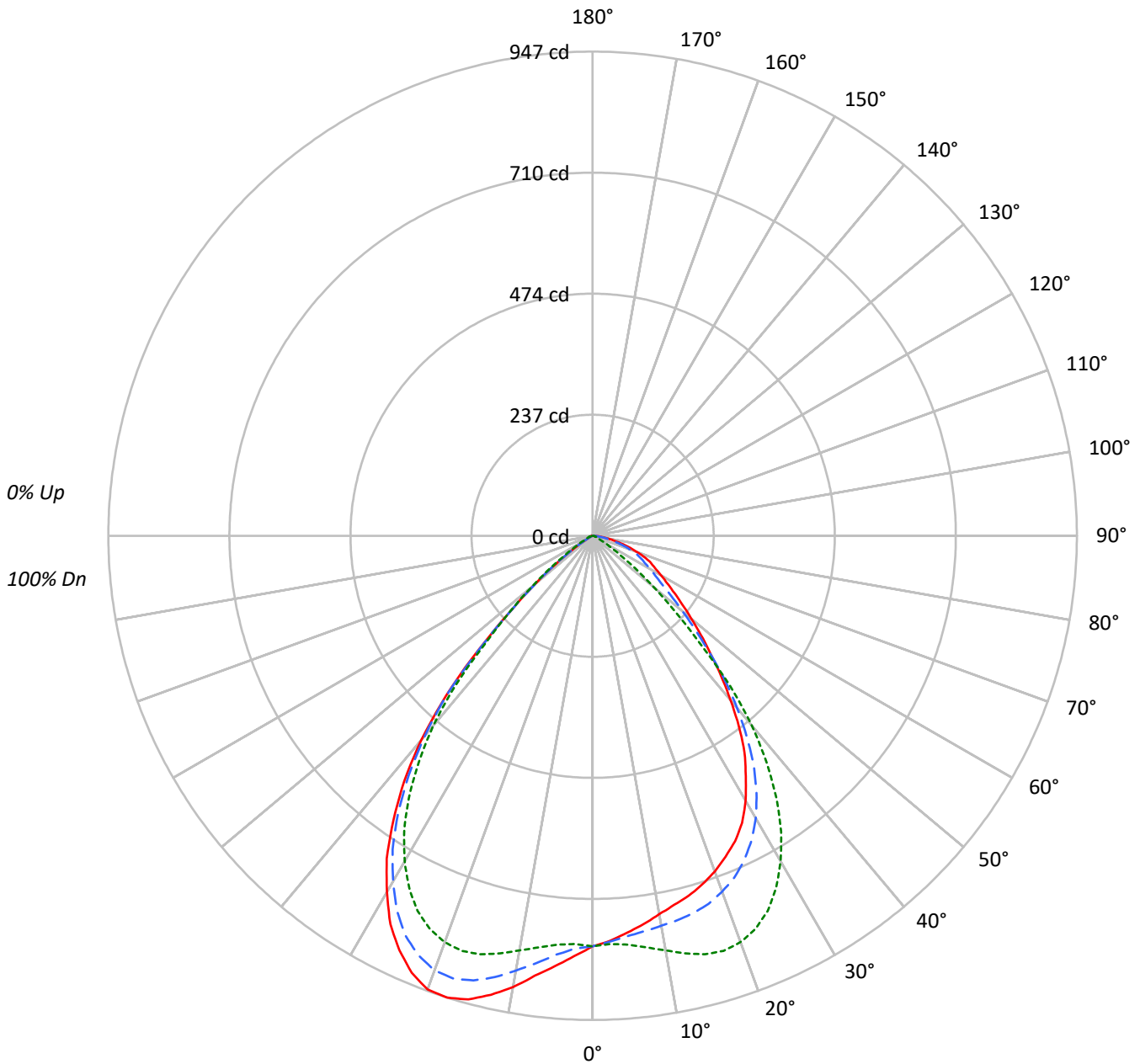
Input Watts (W): 10  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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### Luminous Intensity Polar Plot





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**COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:**

RF	20									20									20									20									
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	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°	52382	52382	52382
5°	51017	52582	55339
10°	49778	54554	59390
15°	49198	57235	63408
20°	48495	58729	65547
25°	47453	58294	64362
30°	45095	55385	60598
35°	41264	49945	54094
40°	35693	41254	44380
45°	30097	27052	29045
50°	25557	15651	14727
55°	22180	7507	5676
60°	20029	3510	1409
65°	19435	2007	479
70°	17435	1621	420
75°	14318	1160	202
80°	10670	564	0
85°	9132	0	0



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	77.5	5.3
10°-20°	236.3	16.1
20°-30°	361.1	24.6
30°-40°	377.7	25.7
40°-50°	245.0	16.7
50°-60°	97.3	6.6
60°-70°	46.1	3.1
70°-80°	21.9	1.5
80°-90°	4.5	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°	675.0	46.0
0°-40°	1052.7	71.7
0°-60°	1394.9	95.1
0°-90°	1467.5	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1467.5	100.0

**CANDELA DISTRIBUTION:**

	0°	45°	90°	135°	180°	Flux
0°	803	803	803	803	803	
5°	779	786	803	823	845	74
15°	728	764	847	900	939	205
25°	659	701	810	864	894	302
35°	518	550	627	664	679	320
45°	326	323	293	311	315	254
55°	195	166	66	51	50	177
65°	126	104	13	3	3	123
75°	57	46	5	2	1	61
85°	12	8	0	0	0	14
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°	802.9	802.9	802.9	802.9	802.9	802.9	802.9	802.9	802.9	802.9	802.9
2.5°	792.9	794.4	786.0	783.6	789.8	792.1	792.9	790.5	791.4	794.4	794.4
5°	779.0	780.6	772.9	770.6	776.8	778.2	780.6	779.8	782.1	786.8	786.0
7.5°	766.0	768.2	759.9	756.8	764.5	768.2	769.9	769.9	772.9	779.0	779.8
10°	751.4	754.5	746.8	745.2	753.8	757.5	758.4	759.9	764.5	772.9	774.5
12.5°	739.1	742.2	736.9	734.5	743.8	747.6	749.1	752.1	757.5	768.2	769.9
15°	728.4	730.8	724.5	723.0	732.2	736.9	737.6	742.2	749.1	761.4	763.8
17.5°	714.6	716.1	711.5	710.0	719.1	723.8	724.5	729.9	738.4	750.6	754.5
20°	698.5	700.0	695.4	693.9	703.0	708.4	709.2	713.8	723.8	736.9	740.6
22.5°	679.2	682.4	677.0	675.4	684.6	689.2	691.5	695.4	705.4	718.4	723.8
25°	659.2	659.2	655.5	654.8	663.1	668.5	667.8	673.1	683.1	696.1	700.8
27.5°	633.2	632.5	628.6	627.9	637.0	641.6	640.1	645.5	654.8	667.8	672.4
30°	598.6	600.2	594.9	593.2	601.0	608.6	607.9	613.2	622.5	634.8	637.9
32.5°	557.2	558.8	558.0	555.8	562.6	566.5	568.8	572.6	580.2	593.2	596.4
35°	518.1	515.8	512.8	512.8	519.6	525.8	523.5	528.0	535.8	548.8	549.5
37.5°	469.8	469.0	467.4	465.9	473.6	475.1	475.9	479.0	485.9	496.6	495.0
40°	419.1	419.9	419.1	416.0	420.6	426.8	426.0	427.5	433.6	441.4	439.0
42.5°	371.5	371.5	371.5	368.4	373.8	376.9	378.4	377.6	379.1	386.1	383.0
45°	326.2	327.0	326.2	325.4	326.2	327.8	326.2	325.4	325.4	327.8	323.1
47.5°	287.0	287.0	284.8	282.5	284.8	285.5	283.2	280.9	280.1	279.4	271.8
50°	251.8	251.0	250.2	246.4	248.6	249.5	246.4	244.9	241.8	237.9	228.8
52.5°	221.0	220.2	219.5	215.6	217.2	218.0	214.9	211.9	208.0	204.9	193.4
55°	195.0	194.1	194.1	191.9	190.4	191.9	188.9	186.5	181.1	177.2	165.8
57.5°	172.8	172.8	171.1	168.9	169.6	169.6	166.5	163.5	158.9	154.2	145.1
60°	153.5	153.5	153.5	151.2	151.2	151.2	149.6	146.6	142.8	138.1	129.0
62.5°	138.1	138.1	137.4	135.1	135.9	135.9	134.4	131.2	127.4	124.4	115.1
65°	125.9	125.9	125.9	123.6	123.6	124.4	122.8	119.8	116.6	112.9	104.4
67.5°	110.5	109.8	109.8	108.2	109.0	109.8	108.2	105.9	102.1	99.8	92.1
70°	91.4	92.1	92.9	90.6	91.4	91.4	90.6	88.2	86.0	83.6	76.8
72.5°	74.5	74.5	73.6	72.9	72.9	73.6	72.1	69.9	68.2	66.8	61.4
75°	56.8	56.0	56.8	55.2	55.2	55.2	53.8	53.0	52.2	49.9	46.0
77.5°	41.5	40.6	40.6	39.1	39.9	39.9	39.1	37.6	36.1	35.2	32.2
80°	28.4	28.4	28.4	27.6	27.6	26.9	26.9	26.1	24.5	23.8	22.2
82.5°	19.2	19.2	19.2	18.4	18.4	18.4	17.6	16.9	16.1	15.4	13.9
85°	12.2	12.2	12.2	11.5	11.5	11.5	10.8	10.8	10.0	9.2	7.6
87.5°	6.9	6.9	6.9	6.1	6.1	6.1	6.1	6.1	5.4	4.6	3.9
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°	802.9	802.9	802.9	802.9	802.9	802.9	802.9	802.9	802.9	802.9	802.9
2.5°	799.8	789.0	795.9	795.9	793.6	799.8	803.6	806.6	805.9	799.0	798.2
5°	793.6	784.4	792.1	792.9	790.5	799.0	804.4	808.2	809.0	802.9	803.6
7.5°	789.0	781.4	791.4	794.4	793.6	801.2	807.5	813.6	816.6	812.0	812.9
10°	786.8	780.6	791.4	795.9	796.8	805.1	814.4	822.8	826.6	823.5	825.9
12.5°	783.6	779.8	792.1	799.0	802.1	810.5	822.0	832.0	838.1	836.6	841.2
15°	780.6	777.5	792.1	802.1	805.9	813.6	826.6	841.2	848.1	847.4	853.5
17.5°	772.9	772.1	787.5	798.2	803.6	812.9	825.1	842.8	849.6	851.2	858.9
20°	760.6	760.6	777.5	789.0	795.1	803.6	819.0	835.9	844.2	845.9	854.2
22.5°	743.8	745.2	761.4	772.9	782.1	788.2	804.4	822.0	829.8	832.0	841.2
25°	721.5	723.0	738.4	749.9	759.9	766.8	782.1	798.2	807.5	809.8	816.6
27.5°	692.4	695.4	710.0	721.5	729.9	734.5	750.6	767.5	774.5	776.8	783.6
30°	658.5	659.2	673.9	683.9	692.4	696.1	710.0	727.6	733.0	735.2	745.2
32.5°	617.1	616.4	630.1	639.4	646.2	650.9	665.5	677.0	682.4	686.1	691.5
35°	567.2	566.5	576.4	587.1	592.5	594.1	608.6	620.9	624.0	627.1	634.0
37.5°	511.1	511.1	519.6	525.0	531.1	533.4	540.4	554.1	559.5	558.8	564.1
40°	452.1	449.0	455.1	460.5	462.0	462.9	469.8	480.5	484.4	484.4	488.1
42.5°	389.9	385.2	386.1	389.1	390.6	385.2	389.9	396.9	394.5	397.6	398.4
45°	323.9	317.0	313.9	307.0	308.5	303.1	300.1	301.6	300.9	293.2	294.8
47.5°	270.1	257.9	252.5	242.5	240.2	234.1	230.2	223.4	217.2	217.2	213.4
50°	224.9	212.6	201.9	190.4	186.5	181.1	172.8	163.5	158.9	154.2	150.4
52.5°	188.9	175.8	162.8	150.4	145.1	138.1	126.6	117.4	109.0	104.4	99.8
55°	159.6	145.1	131.2	118.2	111.2	104.4	92.9	82.1	72.1	66.0	62.1
57.5°	137.4	123.6	109.0	95.1	89.0	81.4	69.1	57.6	48.4	41.5	37.6
60°	121.2	107.5	94.4	79.9	73.6	66.0	53.0	42.2	33.0	26.9	22.2
62.5°	107.5	95.1	81.4	68.2	62.1	54.5	42.2	31.5	23.0	16.9	13.0
65°	97.5	85.2	73.6	60.6	55.2	47.6	36.1	26.1	18.4	13.0	9.2
67.5°	86.0	75.2	63.8	53.0	47.6	41.5	30.8	22.2	15.4	10.8	7.6
70°	72.1	63.8	53.8	43.8	39.9	34.5	25.4	18.4	12.2	8.5	6.1
72.5°	57.6	50.6	43.0	35.2	32.2	26.9	20.8	14.6	9.2	6.1	4.6
75°	43.8	38.4	32.2	26.9	23.8	20.8	15.4	10.8	6.9	4.6	3.1
77.5°	29.9	27.6	23.0	18.4	16.9	14.6	10.0	6.9	4.6	3.1	1.5
80°	20.8	18.4	15.4	12.2	10.8	9.2	6.1	4.6	2.2	1.5	0.8
82.5°	13.0	10.8	9.2	7.6	6.9	5.4	3.9	2.2	1.5	0.8	0.8
85°	6.9	6.1	5.4	3.9	3.9	3.1	2.2	1.5	0.8	0.0	0.0
87.5°	3.9	3.1	2.2	1.5	1.5	0.8	0.8	0.8	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°	802.9	802.9	802.9	802.9	802.9	802.9	802.9	802.9	802.9	802.9	802.9
2.5°	807.5	807.5	806.6	815.9	805.1	815.9	810.5	815.9	808.2	807.5	808.2
5°	813.6	815.9	816.6	825.1	815.1	828.1	823.5	828.1	822.8	824.4	826.6
7.5°	825.9	829.8	828.9	839.6	829.8	844.2	841.2	848.1	842.8	844.2	847.4
10°	839.6	844.2	845.0	855.8	846.6	864.2	860.4	868.1	863.5	865.8	869.6
12.5°	855.8	861.1	862.0	874.2	864.2	882.6	880.4	888.0	884.2	886.5	891.1
15°	868.1	875.8	877.2	889.6	878.9	898.0	896.5	906.5	900.4	904.1	908.0
17.5°	874.2	881.1	884.2	895.8	886.5	905.8	904.1	912.6	908.0	911.9	916.4
20°	870.4	878.9	881.1	892.6	883.4	902.6	900.4	908.8	904.1	907.2	911.9
22.5°	856.6	865.0	868.1	878.9	870.4	888.0	887.2	895.0	888.8	892.6	896.5
25°	832.0	841.2	842.8	852.8	843.5	862.0	860.4	868.9	864.2	866.5	871.9
27.5°	796.8	807.5	809.8	818.2	811.2	826.6	826.6	833.5	828.1	828.1	833.5
30°	754.5	765.2	766.8	773.6	767.5	781.4	782.1	789.0	780.6	785.1	786.0
32.5°	703.0	710.0	714.6	720.8	711.5	729.1	726.9	732.2	727.6	727.6	731.5
35°	640.9	649.4	651.6	659.2	651.6	665.5	665.5	668.5	663.9	663.9	670.0
37.5°	573.4	579.5	580.2	587.9	581.8	593.2	592.5	594.9	590.2	593.2	593.2
40°	494.2	498.9	500.4	504.2	503.5	512.0	511.1	512.8	510.4	511.1	512.8
42.5°	402.1	408.4	411.4	414.5	409.9	421.4	419.1	421.4	420.6	421.4	423.6
45°	296.2	300.9	303.1	304.0	302.4	309.4	314.8	310.1	310.9	309.4	312.4
47.5°	214.1	214.9	213.4	218.0	214.1	217.2	218.8	219.5	214.9	214.1	217.2
50°	146.6	150.4	145.1	147.4	146.6	149.6	148.1	148.9	144.2	146.6	145.1
52.5°	97.5	96.8	95.1	96.0	94.4	94.4	94.4	96.0	92.9	91.4	89.8
55°	59.1	57.6	54.5	53.8	53.8	54.5	53.0	51.4	51.4	50.6	50.6
57.5°	34.5	32.2	30.8	29.9	28.4	27.6	26.9	26.9	25.4	25.4	25.4
60°	19.2	16.9	15.4	13.9	13.9	13.0	12.2	11.5	11.5	11.5	10.8
62.5°	10.0	8.5	6.9	6.1	6.1	5.4	4.6	4.6	4.6	4.6	3.9
65°	6.9	5.4	4.6	3.9	3.9	3.1	3.1	3.1	3.1	3.1	3.1
67.5°	5.4	4.6	3.9	3.1	3.1	3.1	2.2	2.2	2.2	2.2	2.2
70°	4.6	3.1	3.1	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2
72.5°	3.1	3.1	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2
75°	2.2	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5
77.5°	0.8	0.8	0.8	0.8	0.8	0.8	0.0	0.0	0.0	0.0	0.0
80°	0.8	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°	802.9	802.9	802.9	802.9	802.9	802.9	802.9	802.9
2.5°	815.1	814.4	815.1	816.6	813.6	822.8	818.2	822.8
5°	832.8	833.5	834.2	836.6	832.8	844.2	838.1	845.0
7.5°	855.8	856.6	857.4	859.6	857.4	868.9	862.0	868.1
10°	879.6	881.1	881.1	885.0	882.6	893.4	888.8	896.5
12.5°	901.9	903.4	904.9	907.2	905.8	917.2	913.4	919.5
15°	919.5	922.6	923.4	926.4	924.9	937.1	932.5	938.8
17.5°	928.0	931.0	931.0	934.9	933.4	946.4	940.2	947.1
20°	923.4	925.6	926.4	930.2	928.8	941.8	935.6	944.1
22.5°	908.8	909.5	910.2	914.1	913.4	924.9	919.5	924.9
25°	881.9	884.2	883.4	886.5	886.5	895.8	889.6	894.1
27.5°	843.5	845.9	845.9	849.6	846.6	855.8	849.6	856.6
30°	796.8	799.0	797.5	800.5	797.5	806.6	802.1	804.4
32.5°	740.6	740.6	741.4	742.2	740.6	749.1	744.5	749.1
35°	673.9	675.4	676.2	677.0	675.4	681.6	676.2	679.2
37.5°	598.6	602.5	601.8	602.5	600.2	607.9	603.2	604.9
40°	518.1	518.1	517.4	518.9	516.5	522.8	519.6	521.1
42.5°	424.5	426.8	423.6	427.5	421.4	429.9	426.8	424.5
45°	318.5	315.5	314.8	315.5	313.1	313.9	316.2	314.8
47.5°	217.2	217.2	215.6	213.4	216.5	217.2	214.1	214.1
50°	145.9	145.9	144.2	143.5	145.1	144.2	142.8	145.1
52.5°	92.9	89.8	89.8	91.4	89.8	88.2	90.6	89.0
55°	50.6	49.1	49.1	50.6	49.1	49.1	48.4	49.9
57.5°	24.5	25.4	24.5	24.5	24.5	24.5	23.8	24.5
60°	10.8	10.8	10.8	10.8	10.8	10.8	10.8	10.8
62.5°	4.6	4.6	3.9	3.9	3.9	3.9	3.9	3.9
65°	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1
67.5°	2.2	2.2	2.2	2.2	2.2	3.1	2.2	2.2
70°	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2
72.5°	2.2	2.2	3.1	3.1	3.1	3.1	3.1	3.1
75°	1.5	1.5	1.5	0.8	0.8	0.8	0.8	0.8
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)