

Scaled data based on original data using
LM-79-08 Approved Method: Electrical and Photometric Measurements of Solid-State
Lighting Products

Test Report Prepared for

Cooper Lighting Solutions

(formerly Eaton)

Brand: PORTFOLIO

Report Number: P856964

Luminaire Tested: **LX4C15D010 EX4C159035 4LBSWNH**

Issue Date: 2/18/2022



Test Information

Test Method: LM-79-08
Report Number: P856964
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P251634)
Test Lab: INNOVATION CENTER
Issue Date: 2/18/2022
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: PORTFOLIO
Catalog Number: LX4C15D010 EX4C159035 4LBSWNH
Description: 4 INCH 1500 LUMEN PORTFOLIO LED DOWNLIGHT WITH, 3500K, 90CRI LEDS
AND 4LCSW TRIM WITH H FINISH
Light Source: -
Ballast/Driver: -

Summary

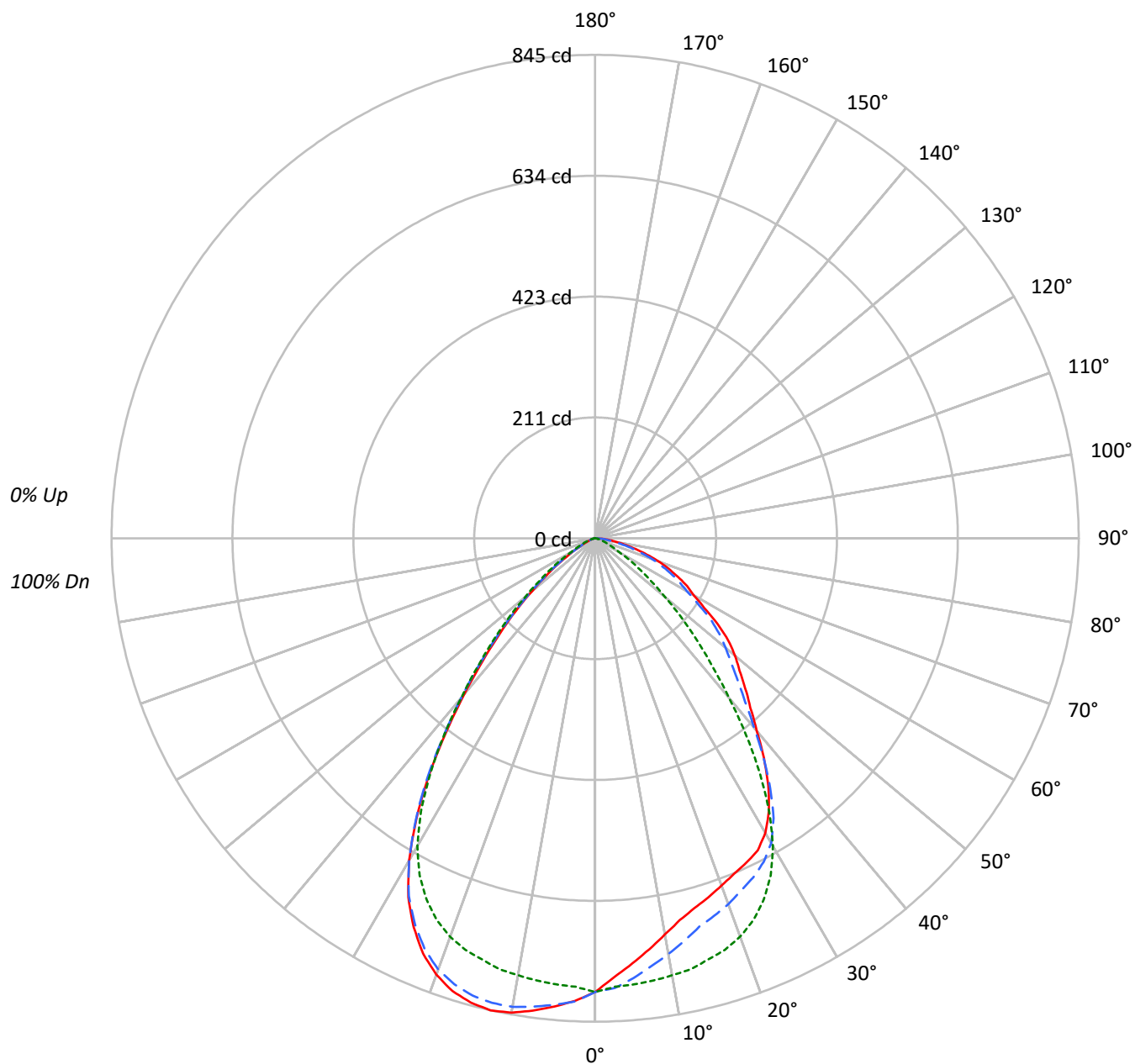
Lumens per Lamp: N/A
Luminaire Lumens: 1390.0 lumens
Efficiency: N/A
Efficacy: 88.0 lumens/watt
Spacing Criteria (0/90/45): 1.17 / 1.17 / 1.15
Luminous Opening: Circular (Dia: 0.33' x H: 0')
CIE Type: Direct

Input Watts (W): 15.8
Input Voltage (V):
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: P856964

CATALOG NUMBER: LX4C15D010 EX4C159035 4LBSWNH

Luminous Intensity Polar Plot





TEST NUMBER: P856964

CATALOG NUMBER: LX4C15D010 EX4C159035 4LBSWNH

COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:

RF	20				20					20					20					20
RC	80				70					50					30					10
RW	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10	50	30	10
RCR																				
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100		
1	111	108	104	101	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	72	70		
4	90	80	72	67	88	78	72	66	76	70	66	74	69	65	72	68	64	62		
5	83	73	65	60	82	72	65	59	70	63	59	68	62	58	66	61	58	56		
6	78	67	59	53	76	66	59	53	64	58	53	62	57	52	61	56	52	50		
7	73	61	54	48	71	61	53	48	59	53	48	58	52	48	56	51	47	46		
8	68	57	49	44	67	56	49	44	55	48	44	54	48	43	52	47	43	42		
9	64	52	45	40	63	52	45	40	51	44	40	50	44	40	49	44	40	38		
10	61	49	42	37	59	48	42	37	47	41	37	47	41	37	46	40	37	35		

AVERAGE LUMINANCE (cd/sqm):

	0°	90°	180°
0°	97423	97423	97423
5°	91986	96537	101322
10°	87698	96755	105038
15°	85126	96955	106837
20°	84431	96864	106081
25°	84775	94467	101665
30°	84364	88137	92194
35°	79083	75258	76008
40°	70468	58344	57029
45°	64441	43505	40829
50°	60931	30465	27541
55°	56032	20584	17285
60°	48945	12040	9533
65°	46337	7733	5349
70°	42206	5496	3305
75°	34936	3892	2421
80°	27450	2193	1415
85°	24527	1410	0



TEST NUMBER: P856964

CATALOG NUMBER: LX4C15D010 EX4C159035 4LBSWNH

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	74.9	5.4
10°-20°	214.9	15.5
20°-30°	318.6	22.9
30°-40°	319.1	23.0
40°-50°	223.0	16.0
50°-60°	132.7	9.5
60°-70°	69.3	5.0
70°-80°	30.8	2.2
80°-90°	6.7	0.5
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°	608.5	43.8
0°-40°	927.6	66.7
0°-60°	1283.2	92.3
0°-90°	1390.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1390.0	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	793	793	793	793	793	
5°	746	772	783	818	822	70
15°	669	703	762	828	840	190
25°	625	654	697	745	750	288
35°	527	533	502	511	507	327
45°	371	352	250	242	235	288
55°	262	245	96	84	81	232
65°	159	146	27	19	18	158
75°	74	64	8	5	5	80
85°	17	13	1	1	0	19
90°	0	0	0	0	0	



TEST NUMBER: P856964

CATALOG NUMBER: LX4C15D010 EX4C159035 4LBSWNH

CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	22.5°	25°	30°	35°	40°	45°
0°	793.0	793.0	793.0	793.0	793.0	793.0	793.0	793.0	793.0	793.0	793.0
2.5°	767.4	776.6	767.4	770.5	782.8	771.5	777.6	777.6	774.6	781.7	786.8
5°	745.9	755.2	745.9	750.0	763.3	752.1	759.2	757.2	758.2	764.4	771.5
7.5°	724.5	731.6	723.5	728.6	740.9	731.6	737.8	737.8	738.8	748.0	754.2
10°	703.0	709.2	703.0	707.1	720.4	712.3	716.3	717.3	720.4	728.6	737.8
12.5°	683.6	688.7	682.6	688.7	700.0	691.8	696.9	697.9	701.0	710.2	720.4
15°	669.3	674.4	668.3	673.4	683.6	677.5	681.6	683.6	685.7	693.8	703.0
17.5°	658.1	662.2	657.1	663.2	671.4	664.2	670.4	670.4	673.4	681.6	691.8
20°	645.8	649.9	645.8	650.9	660.1	654.0	659.1	659.1	662.2	671.4	680.6
22.5°	634.6	636.6	634.6	638.7	647.8	642.8	645.8	646.8	649.9	658.1	666.3
25°	625.4	629.5	627.4	631.5	637.6	632.5	635.6	636.6	639.7	646.8	654.0
27.5°	615.2	617.2	615.2	620.3	625.4	621.3	624.4	623.3	625.4	631.5	637.6
30°	594.7	596.8	596.8	599.8	603.9	601.9	604.9	601.9	603.9	609.0	615.2
32.5°	565.1	566.1	567.1	570.2	573.3	570.2	572.3	572.3	572.3	576.3	580.4
35°	527.3	529.3	528.3	530.4	533.4	532.4	532.4	531.4	529.3	531.4	533.4
37.5°	484.4	481.3	481.3	484.4	486.4	482.3	484.4	482.3	482.3	483.3	483.3
40°	439.4	436.3	439.4	440.4	441.4	439.4	438.4	436.3	433.3	434.3	432.3
42.5°	401.6	399.5	400.6	400.6	401.6	399.5	400.6	396.5	393.4	391.4	388.3
45°	370.9	367.9	370.9	368.9	368.9	367.9	366.8	364.8	360.7	357.7	352.5
47.5°	342.3	342.3	343.3	343.3	343.3	341.3	341.3	337.2	333.1	329.0	321.9
50°	318.8	316.8	320.9	320.9	317.8	316.8	317.8	312.7	309.6	304.5	297.3
52.5°	293.3	293.3	294.3	294.3	293.3	291.2	292.3	288.2	285.1	280.0	272.8
55°	261.6	259.6	262.6	262.6	261.6	260.6	261.6	258.5	255.5	251.4	245.2
57.5°	225.8	224.8	226.8	227.9	225.8	225.8	226.8	223.8	222.8	218.7	212.5
60°	199.2	198.2	200.3	201.3	199.2	199.2	199.2	195.2	193.1	189.0	184.9
62.5°	180.9	179.9	181.9	180.9	179.9	178.8	179.9	175.8	173.7	169.6	165.6
65°	159.4	160.4	161.5	161.5	160.4	159.4	159.4	157.4	155.3	151.3	146.1
67.5°	139.0	139.0	140.0	141.0	140.0	140.0	140.0	136.9	134.9	131.8	125.7
70°	117.5	116.5	119.6	119.6	117.5	118.5	117.5	116.5	114.4	110.4	105.3
72.5°	95.0	95.0	96.1	96.1	95.0	95.0	95.0	94.0	90.9	88.9	83.8
75°	73.6	73.6	74.6	75.6	73.6	73.6	74.6	72.5	70.5	67.5	64.4
77.5°	55.2	54.2	55.2	55.2	54.2	54.2	54.2	53.2	52.1	49.0	46.0
80°	38.8	37.8	38.8	38.8	38.8	37.8	37.8	36.8	36.8	34.7	31.7
82.5°	26.6	25.6	26.6	26.6	26.6	25.6	25.6	25.6	24.5	23.5	21.5
85°	17.4	16.3	16.3	17.4	16.3	16.3	16.3	16.3	15.3	14.3	13.3
87.5°	8.2	8.2	8.2	8.2	8.2	8.2	8.2	7.2	7.2	7.2	6.1
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: P856964

CATALOG NUMBER: LX4C15D010 EX4C159035 4LBSWNH

CANDELA DISTRIBUTION (continued):

	50°	55°	60°	65°	67.5°	70°	75°	80°	85°	90°	95°
0°	793.0	793.0	793.0	793.0	793.0	793.0	793.0	793.0	793.0	793.0	793.0
2.5°	782.8	780.7	786.8	784.8	785.8	780.7	788.9	784.8	789.9	784.8	795.0
5°	769.5	767.4	776.6	775.6	776.6	772.5	781.7	780.7	786.8	782.8	794.0
7.5°	755.2	753.1	763.3	764.4	766.4	762.3	774.6	774.6	780.7	779.7	791.9
10°	738.8	739.8	750.0	752.1	756.2	754.2	765.4	768.5	776.6	775.6	790.9
12.5°	723.5	723.5	736.8	740.9	743.9	742.9	756.2	760.3	769.5	771.5	785.8
15°	708.2	709.2	721.4	727.6	731.6	730.6	744.9	750.0	761.3	762.3	779.7
17.5°	695.9	694.9	708.2	713.3	719.4	718.4	733.7	739.8	751.1	754.2	770.5
20°	685.7	684.7	696.9	703.0	707.1	706.1	721.4	728.6	738.8	740.9	757.2
22.5°	673.4	671.4	683.6	688.7	692.8	691.8	705.1	710.2	720.4	722.5	737.8
25°	659.1	657.1	668.3	671.4	674.4	672.4	683.6	686.7	694.9	696.9	712.3
27.5°	642.8	637.6	646.8	646.8	648.9	645.8	654.0	657.1	664.2	664.2	678.5
30°	617.2	610.1	615.2	614.2	615.2	611.1	616.2	617.2	622.3	621.3	631.5
32.5°	581.4	571.2	574.3	571.2	568.2	562.0	568.2	566.1	570.2	566.1	575.3
35°	532.4	522.2	521.1	517.1	514.0	508.9	508.9	503.8	504.8	501.8	507.9
37.5°	479.2	466.0	463.9	455.8	450.6	444.5	444.5	440.4	435.3	433.3	438.4
40°	427.1	412.8	407.7	394.4	389.3	383.2	379.1	374.0	372.0	363.8	367.9
42.5°	382.2	366.8	355.6	341.3	336.2	327.0	320.9	314.7	311.7	302.5	306.6
45°	344.4	326.0	313.7	295.3	288.2	278.0	268.7	261.6	254.4	250.4	248.3
47.5°	312.7	293.3	276.9	256.5	245.2	236.1	223.8	216.6	207.5	202.3	199.2
50°	286.1	264.7	246.3	222.8	211.5	201.3	187.0	175.8	167.6	159.4	157.4
52.5°	262.6	240.1	219.7	193.1	179.9	167.6	152.3	140.0	132.8	123.7	122.6
55°	235.0	215.6	193.1	165.6	152.3	140.0	123.7	111.4	102.2	96.1	94.0
57.5°	205.4	187.0	165.6	138.0	124.7	111.4	96.1	84.8	76.6	71.5	70.5
60°	177.8	160.4	140.0	112.4	99.1	87.9	71.5	60.3	53.2	49.0	47.0
62.5°	157.4	141.0	121.6	96.1	83.8	72.5	57.2	47.0	40.9	36.8	34.7
65°	138.0	121.6	104.2	80.7	70.5	60.3	46.0	36.8	30.6	26.6	24.5
67.5°	117.5	103.2	86.8	67.5	57.2	49.0	36.8	28.6	23.5	20.4	18.4
70°	97.1	83.8	70.5	54.2	47.0	38.8	28.6	22.5	17.4	15.3	13.3
72.5°	76.6	66.4	55.2	41.9	35.8	30.6	22.5	16.3	13.3	11.3	9.2
75°	57.2	50.1	40.9	31.7	26.6	22.5	16.3	12.3	10.2	8.2	7.2
77.5°	40.9	34.7	28.6	21.5	19.4	16.3	11.3	9.2	7.2	5.1	4.1
80°	27.6	24.5	19.4	15.3	12.3	11.3	8.2	6.1	4.1	3.1	3.1
82.5°	18.4	15.3	12.3	9.2	8.2	7.2	5.1	4.1	3.1	2.0	2.0
85°	11.3	9.2	7.2	5.1	5.1	4.1	3.1	2.0	1.0	1.0	1.0
87.5°	5.1	4.1	3.1	2.0	2.0	1.0	1.0	1.0	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: P856964

CATALOG NUMBER: LX4C15D010 EX4C159035 4LBSWNH

CANDELA DISTRIBUTION (continued):

	100°	105°	110°	112.5°	115°	120°	125°	130°	135°	140°	145°
0°	793.0	793.0	793.0	793.0	793.0	793.0	793.0	793.0	793.0	793.0	793.0
2.5°	803.2	797.1	793.0	798.1	800.1	797.1	800.1	805.2	810.4	811.4	797.1
5°	804.2	798.1	796.0	802.1	803.2	802.1	805.2	812.4	818.5	820.6	806.3
7.5°	804.2	800.1	799.1	806.3	807.3	806.3	811.4	819.5	825.7	829.7	815.4
10°	802.1	800.1	801.1	807.3	809.3	809.3	816.5	825.7	831.8	835.9	821.6
12.5°	799.1	799.1	799.1	806.3	808.3	809.3	815.4	827.7	831.8	837.9	823.6
15°	794.0	794.0	794.0	801.1	804.2	804.2	811.4	822.6	827.7	833.8	819.5
17.5°	784.8	784.8	785.8	791.9	795.0	795.0	802.1	814.4	817.5	824.7	810.4
20°	771.5	771.5	772.5	778.7	781.7	779.7	788.9	799.1	802.1	808.3	794.0
22.5°	752.1	752.1	752.1	758.2	760.3	759.2	768.5	777.6	777.6	785.8	770.5
25°	723.5	725.5	723.5	729.6	731.6	730.6	738.8	747.0	744.9	754.2	738.8
27.5°	688.7	687.7	687.7	692.8	692.8	691.8	697.9	707.1	705.1	711.2	696.9
30°	640.7	643.8	638.7	645.8	642.8	640.7	644.8	653.0	649.9	655.0	643.8
32.5°	585.5	581.4	581.4	581.4	583.5	578.4	582.5	586.6	583.5	588.6	576.3
35°	513.0	514.0	510.9	512.0	513.0	506.8	510.9	515.0	510.9	514.0	502.8
37.5°	440.4	441.4	434.3	438.4	434.3	432.3	436.3	438.4	434.3	437.3	425.1
40°	367.9	365.8	364.8	364.8	365.8	360.7	363.8	366.8	363.8	365.8	354.6
42.5°	304.5	303.5	301.5	302.5	299.4	298.4	299.4	302.5	299.4	301.5	293.3
45°	249.3	247.3	244.2	245.2	245.2	240.1	243.2	245.2	242.2	243.2	236.1
47.5°	198.2	195.2	195.2	194.2	194.2	192.1	195.2	194.2	191.1	193.1	186.0
50°	154.3	152.3	152.3	152.3	152.3	149.2	150.2	152.3	149.2	149.2	145.1
52.5°	120.6	117.5	115.5	115.5	115.5	114.4	114.4	115.5	112.4	112.4	111.4
55°	90.9	89.9	86.8	86.8	86.8	83.8	84.8	84.8	83.8	83.8	80.7
57.5°	67.5	64.4	62.3	62.3	60.3	60.3	59.3	60.3	58.2	58.2	56.2
60°	44.9	42.9	41.9	40.9	40.9	39.9	40.9	39.9	39.9	38.8	37.8
62.5°	32.7	30.6	28.6	28.6	28.6	27.6	27.6	27.6	27.6	27.6	26.6
65°	23.5	21.5	21.5	20.4	20.4	19.4	19.4	19.4	19.4	19.4	18.4
67.5°	16.3	15.3	14.3	14.3	14.3	14.3	14.3	14.3	13.3	13.3	13.3
70°	12.3	11.3	10.2	10.2	10.2	10.2	10.2	9.2	10.2	10.2	9.2
72.5°	8.2	8.2	7.2	7.2	7.2	7.2	7.2	7.2	7.2	7.2	7.2
75°	6.1	6.1	5.1	5.1	5.1	5.1	5.1	5.1	5.1	5.1	5.1
77.5°	4.1	4.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1
80°	3.1	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
82.5°	2.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
85°	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	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: P856964

CATALOG NUMBER: LX4C15D010 EX4C159035 4LBSWNH

CANDELA DISTRIBUTION (continued):

	150°	155°	157.5°	160°	165°	170°	175°	180°
0°	793.0	793.0	793.0	793.0	793.0	793.0	793.0	793.0
2.5°	812.4	811.4	809.3	812.4	804.2	801.1	800.1	809.3
5°	823.6	821.6	821.6	824.7	815.4	813.4	811.4	821.6
7.5°	833.8	831.8	831.8	834.9	826.7	824.7	822.6	832.8
10°	840.0	840.0	840.0	842.0	834.9	832.8	831.8	842.0
12.5°	843.0	843.0	842.0	846.1	836.9	836.9	834.9	845.1
15°	839.0	839.0	839.0	842.0	833.8	831.8	831.8	840.0
17.5°	828.7	828.7	827.7	830.8	821.6	821.6	820.6	829.7
20°	813.4	813.4	811.4	815.4	806.3	803.2	802.1	811.4
22.5°	788.9	787.8	786.8	788.9	780.7	778.7	777.6	785.8
25°	757.2	756.2	754.2	756.2	747.0	743.9	743.9	750.0
27.5°	712.3	712.3	709.2	712.3	702.0	701.0	700.0	707.1
30°	657.1	653.0	650.9	655.0	644.8	644.8	642.8	649.9
32.5°	588.6	584.5	583.5	585.5	576.3	573.3	577.3	581.4
35°	509.9	510.9	506.8	506.8	498.7	499.7	500.7	506.8
37.5°	434.3	432.3	431.2	432.3	426.1	424.1	422.0	428.2
40°	363.8	358.7	357.7	357.7	352.5	351.5	352.5	355.6
42.5°	297.3	296.3	292.3	294.3	289.2	291.2	290.2	290.2
45°	240.1	241.1	237.1	240.1	236.1	233.0	233.0	235.0
47.5°	190.1	190.1	189.0	189.0	186.0	187.0	184.9	188.0
50°	147.1	147.1	145.1	146.1	144.1	144.1	143.0	144.1
52.5°	112.4	111.4	111.4	110.4	108.3	109.4	110.4	108.3
55°	81.8	82.8	80.7	81.8	79.7	80.7	79.7	80.7
57.5°	56.2	57.2	55.2	57.2	55.2	56.2	55.2	55.2
60°	38.8	38.8	37.8	38.8	37.8	37.8	36.8	38.8
62.5°	26.6	26.6	26.6	26.6	26.6	25.6	26.6	26.6
65°	19.4	18.4	18.4	18.4	18.4	18.4	18.4	18.4
67.5°	13.3	13.3	13.3	13.3	13.3	13.3	13.3	13.3
70°	9.2	9.2	9.2	9.2	9.2	9.2	9.2	9.2
72.5°	7.2	7.2	7.2	7.2	7.2	7.2	7.2	7.2
75°	5.1	5.1	5.1	5.1	5.1	5.1	5.1	5.1
77.5°	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1
80°	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
82.5°	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
85°	1.0	1.0	1.0	0.0	1.0	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



Report Generated By 670246072 / DESKTOP-50001EG





— 0°-180° - - 45°-225° - - - 90°-270°













(END OF REPORT)