

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: P274430

Luminaire Tested: **LD6B20DE010W2N2765 EU6B1020W2N902765 6LBSW0LI**

Issue Date: 3/3/2020

Test Information

Test Method: LM-41-14
Report Number: P274430
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G1-1808-906-18)
Test Lab: INNOVATION CENTER(G1)
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: io LED
Catalog Number: LD6B20DE010W2N2765 EU6B1020W2N902765 6LBSW0LI
Description: PORTFOLIO 6" W2N RN DOWNLIGHT, SINGLE WALLWASH WITH SPECULAR FINISH
Light Source: W2N 2700K-6500K CCT TUNING RANGE
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 1673.8 lumens
Efficiency: N/A
Efficacy: 59.8 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 1.24 / 1.16
Luminous Opening: Circular (Dia: 0.5' x H: 0')
CIE Type: Direct

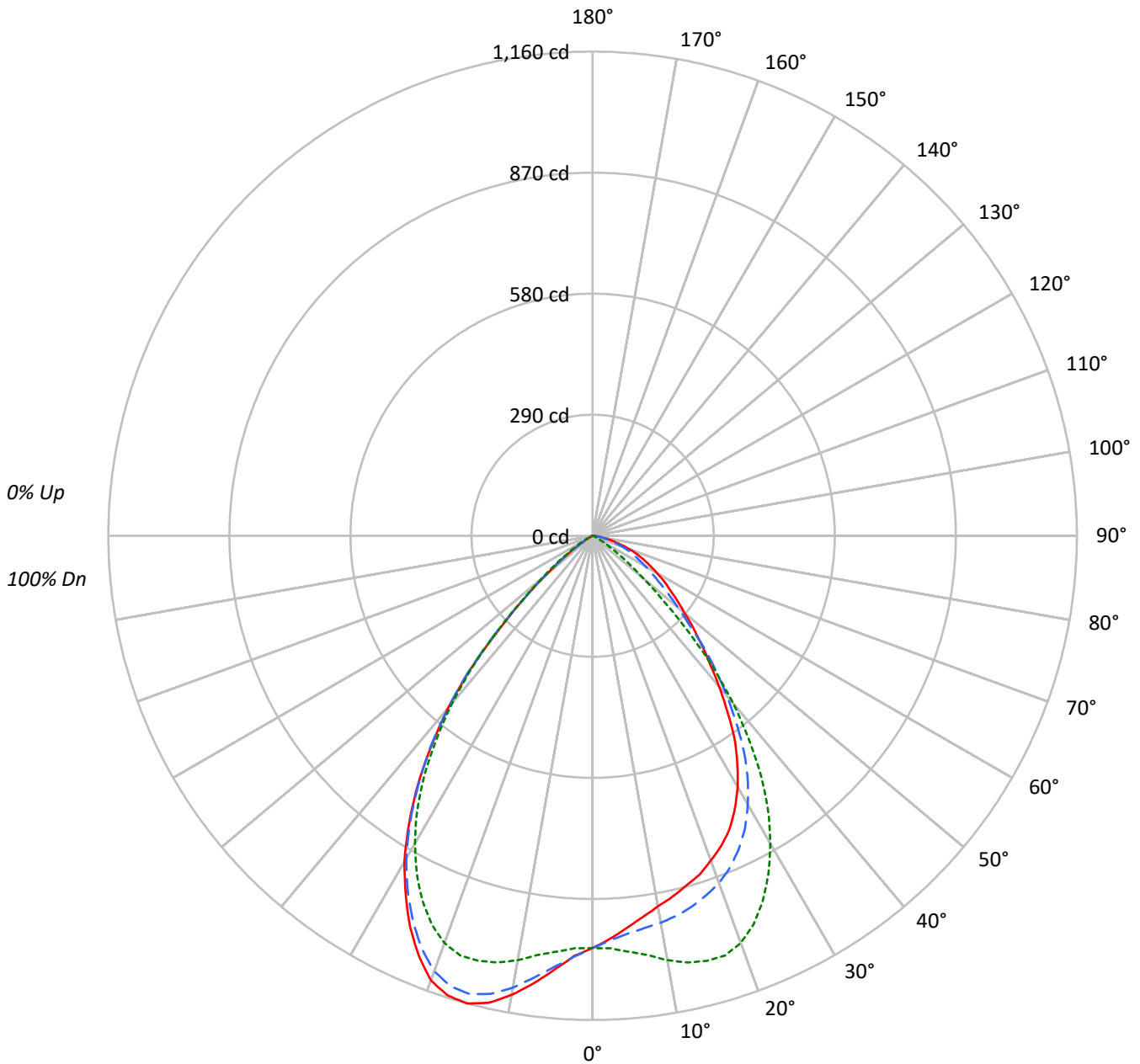
Input Watts (W): 28
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Luminous Intensity Polar Plot





TEST NUMBER: P274430

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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	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	112	109	106	103	110	107	104	101	102	100	98	99	97	95	95	94	92	91					91			
2	105	99	94	90	103	97	93	89	94	90	87	91	88	85	88	85	83	81					81			
3	98	90	84	79	96	89	83	78	86	81	77	83	79	76	81	78	75	73					73			
4	92	82	76	70	90	81	75	70	79	73	69	77	72	68	75	71	67	66					66			
5	86	76	68	63	84	75	68	63	73	67	62	71	66	62	69	65	61	59					59			
6	80	70	62	57	79	69	62	57	67	61	56	66	60	56	64	59	56	54					54			
7	75	64	57	52	74	63	57	52	62	56	51	61	55	51	60	55	51	49					49			
8	71	59	52	47	69	59	52	47	58	51	47	57	51	47	55	50	47	45					45			
9	67	55	48	44	65	55	48	43	54	48	43	53	47	43	52	47	43	41					41			
10	63	52	45	40	62	51	45	40	50	44	40	49	44	40	48	43	40	38					38			

AVERAGE LUMINANCE (cd/sqm):

	0°	90°	180°
0°	54146	54146	54146
5°	51882	55046	57418
10°	50183	57481	62179
15°	49228	59830	65840
20°	48298	60555	66109
25°	46926	58334	62568
30°	43994	53888	57066
35°	39659	47114	48914
40°	33670	37399	38558
45°	28546	24925	24367
50°	24502	13475	12102
55°	21629	6690	4980
60°	19494	2949	1184
65°	17473	1401	467
70°	14970	1154	289
75°	11416	763	0
80°	7924	568	0
85°	6793	0	0



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	95.9	5.7
10°-20°	289.9	17.3
20°-30°	424.8	25.4
30°-40°	421.1	25.2
40°-50°	264.1	15.8
50°-60°	107.2	6.4
60°-70°	47.7	2.9
70°-80°	19.7	1.2
80°-90°	3.4	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°	810.6	48.4
0°-40°	1231.7	73.6
0°-60°	1603.0	95.8
0°-90°	1673.8	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1673.8	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	988	988	988	988	988	
5°	943	957	1000	1036	1043	89
15°	867	920	1054	1137	1160	245
25°	776	828	964	1018	1034	355
35°	593	632	704	727	731	366
45°	368	374	322	322	314	287
55°	226	194	70	56	52	205
65°	135	110	11	4	4	133
75°	54	41	4	2	0	59
85°	11	5	0	0	0	12
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°	987.7	987.7	987.7	987.7	987.7	987.7	987.7	987.7	987.7	987.7	987.7
2.5°	966.2	964.4	964.4	966.2	966.2	966.2	966.2	968.0	968.0	969.8	969.8
5°	942.8	941.0	942.8	946.4	946.4	946.4	948.2	950.0	953.6	953.6	957.2
7.5°	921.3	921.3	924.9	926.7	928.5	928.5	928.5	933.9	937.5	944.6	948.2
10°	901.5	899.7	906.9	908.7	914.1	912.3	914.1	919.5	926.7	932.1	941.0
12.5°	885.4	885.4	890.8	890.8	896.2	899.7	897.9	906.9	912.3	921.3	932.1
15°	867.4	867.4	871.0	874.6	878.2	880.0	881.8	890.8	897.9	906.9	919.5
17.5°	851.3	847.7	851.3	854.8	860.2	860.2	865.6	871.0	881.8	890.8	903.3
20°	827.9	827.9	831.5	833.3	838.7	842.3	844.1	851.3	860.2	871.0	885.4
22.5°	804.6	804.6	808.2	809.9	815.3	817.1	818.9	827.9	835.1	845.9	860.2
25°	775.8	775.8	779.4	781.2	786.6	786.6	792.0	797.4	804.6	817.1	827.9
27.5°	738.1	741.7	741.7	745.3	748.9	750.7	754.3	759.7	766.8	777.6	790.2
30°	695.0	693.2	698.6	700.4	705.8	707.6	713.0	716.6	723.7	734.5	743.5
32.5°	644.7	648.3	650.1	651.9	655.5	657.3	660.9	666.3	673.5	680.6	691.4
35°	592.6	592.6	592.6	594.4	598.0	601.6	603.4	608.8	616.0	625.0	632.2
37.5°	529.8	531.6	535.2	535.2	540.6	542.4	544.2	549.5	556.7	562.1	565.7
40°	470.5	472.3	474.1	474.1	477.7	481.3	479.5	486.7	490.3	495.7	499.3
42.5°	416.6	414.9	420.2	422.0	422.0	425.6	427.4	429.2	431.0	434.6	434.6
45°	368.2	366.4	370.0	370.0	371.8	371.8	373.5	373.5	373.5	377.1	373.5
47.5°	326.9	323.3	325.1	325.1	323.3	325.1	325.1	323.3	321.5	317.9	312.5
50°	287.3	287.3	287.3	285.5	285.5	285.5	283.8	283.8	278.4	274.8	265.8
52.5°	255.0	255.0	255.0	253.2	249.6	251.4	251.4	246.0	242.4	237.1	228.1
55°	226.3	226.3	226.3	224.5	222.7	220.9	219.1	217.3	210.1	206.5	194.0
57.5°	202.9	199.3	199.3	199.3	195.8	195.8	194.0	188.6	183.2	177.8	168.8
60°	177.8	177.8	177.8	174.2	174.2	172.4	170.6	165.2	161.6	154.4	145.5
62.5°	154.4	154.4	152.7	152.7	150.9	149.1	147.3	143.7	140.1	134.7	125.7
65°	134.7	134.7	132.9	132.9	131.1	129.3	129.3	125.7	122.1	116.7	109.5
67.5°	114.9	114.9	113.1	113.1	111.3	109.5	109.5	106.0	102.4	98.8	93.4
70°	93.4	91.6	91.6	91.6	89.8	88.0	88.0	86.2	82.6	79.0	75.4
72.5°	71.8	71.8	71.8	70.0	70.0	68.2	68.2	66.4	64.7	61.1	57.5
75°	53.9	53.9	53.9	52.1	52.1	50.3	50.3	48.5	46.7	44.9	41.3
77.5°	39.5	37.7	37.7	35.9	35.9	35.9	35.9	32.3	32.3	30.5	28.7
80°	25.1	25.1	25.1	25.1	23.3	23.3	23.3	21.6	21.6	19.8	18.0
82.5°	16.2	16.2	16.2	16.2	16.2	14.4	14.4	14.4	12.6	12.6	10.8
85°	10.8	10.8	9.0	9.0	9.0	9.0	9.0	7.2	7.2	7.2	5.4
87.5°	5.4	5.4	5.4	5.4	3.6	3.6	3.6	3.6	3.6	3.6	1.8
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°	987.7	987.7	987.7	987.7	987.7	987.7	987.7	987.7	987.7	987.7	987.7
2.5°	973.4	973.4	980.6	978.8	980.6	978.8	984.1	985.9	987.7	989.5	991.3
5°	964.4	966.2	971.6	975.2	977.0	977.0	985.9	989.5	994.9	1000.3	1003.9
7.5°	957.2	962.6	969.8	977.0	980.6	980.6	993.1	998.5	1007.5	1012.9	1020.1
10°	951.8	960.8	969.8	980.6	989.5	989.5	1005.7	1014.7	1023.7	1032.6	1043.4
12.5°	941.0	955.4	966.2	980.6	989.5	989.5	1011.1	1023.7	1034.4	1047.0	1061.4
15°	933.9	944.6	962.6	977.0	985.9	989.5	1012.9	1027.3	1039.8	1054.2	1068.6
17.5°	919.5	932.1	950.0	968.0	978.8	984.1	1005.7	1020.1	1038.0	1054.2	1063.2
20°	899.7	914.1	932.1	951.8	960.8	966.2	991.3	1003.9	1021.9	1038.0	1048.8
22.5°	874.6	889.0	906.9	924.9	933.9	942.8	964.4	978.8	993.1	1007.5	1016.5
25°	840.5	858.4	872.8	890.8	899.7	906.9	924.9	939.3	951.8	964.4	977.0
27.5°	799.2	815.3	831.5	847.7	854.8	860.2	876.4	890.8	903.3	912.3	923.1
30°	756.1	766.8	783.0	797.4	802.8	806.4	818.9	827.9	842.3	851.3	856.6
32.5°	700.4	713.0	721.9	734.5	739.9	743.5	756.1	763.3	774.0	783.0	790.2
35°	642.9	644.7	655.5	666.3	666.3	671.7	682.4	689.6	695.0	704.0	709.4
37.5°	571.1	574.7	585.5	590.8	590.8	589.1	599.8	603.4	612.4	614.2	619.6
40°	502.9	506.4	508.2	510.0	510.0	510.0	513.6	511.8	520.8	522.6	524.4
42.5°	434.6	432.8	434.6	427.4	427.4	423.8	420.2	420.2	420.2	425.6	427.4
45°	368.2	362.8	352.0	343.0	344.8	337.6	328.6	325.1	321.5	321.5	321.5
47.5°	305.3	294.5	282.0	269.4	262.2	255.0	244.2	235.3	229.9	228.1	226.3
50°	255.0	244.2	228.1	210.1	202.9	194.0	181.4	168.8	163.4	158.0	156.2
52.5°	215.5	201.1	183.2	163.4	154.4	145.5	132.9	122.1	113.1	107.8	104.2
55°	181.4	167.0	147.3	127.5	120.3	109.5	95.2	84.4	75.4	70.0	64.7
57.5°	158.0	141.9	122.1	102.4	93.4	84.4	68.2	57.5	48.5	43.1	39.5
60°	134.7	120.3	102.4	82.6	73.6	64.7	50.3	39.5	30.5	26.9	21.6
62.5°	114.9	102.4	86.2	66.4	57.5	50.3	37.7	26.9	19.8	16.2	12.6
65°	100.6	88.0	73.6	57.5	48.5	41.3	30.5	21.6	16.2	10.8	9.0
67.5°	84.4	73.6	61.1	46.7	41.3	34.1	25.1	18.0	12.6	9.0	7.2
70°	68.2	59.3	48.5	37.7	32.3	26.9	19.8	14.4	9.0	7.2	5.4
72.5°	50.3	44.9	35.9	28.7	23.3	19.8	14.4	10.8	7.2	5.4	3.6
75°	35.9	32.3	25.1	19.8	16.2	14.4	10.8	7.2	5.4	3.6	1.8
77.5°	25.1	21.6	18.0	14.4	10.8	10.8	7.2	5.4	3.6	1.8	1.8
80°	16.2	14.4	10.8	9.0	7.2	5.4	3.6	1.8	1.8	1.8	0.0
82.5°	9.0	7.2	7.2	5.4	3.6	3.6	1.8	1.8	0.0	0.0	0.0
85°	5.4	3.6	3.6	1.8	1.8	1.8	1.8	0.0	0.0	0.0	0.0
87.5°	1.8	1.8	1.8	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):

	100°	105°	110°	112.5°	115°	120°	125°	130°	135°	140°	145°
0°	987.7	987.7	987.7	987.7	987.7	987.7	987.7	987.7	987.7	987.7	987.7
2.5°	993.1	994.9	996.7	998.5	1000.3	1000.3	1000.3	1005.7	1009.3	1009.3	1011.1
5°	1007.5	1012.9	1012.9	1018.3	1020.1	1021.9	1023.7	1030.8	1036.2	1032.6	1038.0
7.5°	1025.5	1038.0	1038.0	1043.4	1047.0	1048.8	1056.0	1063.2	1066.8	1068.6	1070.4
10°	1050.6	1061.4	1066.8	1068.6	1073.9	1077.5	1086.5	1093.7	1099.1	1102.7	1106.3
12.5°	1068.6	1079.3	1084.7	1093.7	1097.3	1102.7	1109.9	1117.0	1124.2	1129.6	1135.0
15°	1079.3	1090.1	1097.3	1102.7	1108.1	1113.5	1120.6	1131.4	1136.8	1140.4	1145.8
17.5°	1073.9	1086.5	1091.9	1100.9	1106.3	1109.9	1117.0	1124.2	1131.4	1133.2	1136.8
20°	1056.0	1066.8	1075.7	1079.3	1084.7	1090.1	1095.5	1102.7	1109.9	1109.9	1117.0
22.5°	1027.3	1038.0	1043.4	1045.2	1048.8	1057.8	1057.8	1066.8	1070.4	1072.1	1077.5
25°	982.4	991.3	996.7	1000.3	1003.9	1005.7	1011.1	1018.3	1018.3	1021.9	1023.7
27.5°	930.3	935.7	941.0	944.6	948.2	948.2	951.8	959.0	959.0	960.8	962.6
30°	867.4	874.6	876.4	880.0	878.2	881.8	887.2	890.8	892.6	890.8	896.2
32.5°	793.8	799.2	802.8	806.4	806.4	808.2	808.2	811.7	813.5	815.3	818.9
35°	711.2	716.6	718.4	720.2	725.5	721.9	723.7	727.3	727.3	730.9	727.3
37.5°	621.4	628.6	634.0	628.6	630.4	634.0	634.0	634.0	637.5	635.7	635.7
40°	529.8	529.8	531.6	535.2	533.4	538.8	537.0	538.8	537.0	538.8	540.6
42.5°	431.0	425.6	432.8	429.2	432.8	432.8	432.8	434.6	436.4	434.6	431.0
45°	317.9	321.5	316.1	316.1	317.9	319.7	319.7	319.7	321.5	317.9	319.7
47.5°	224.5	222.7	220.9	220.9	222.7	220.9	220.9	224.5	220.9	220.9	219.1
50°	156.2	152.7	152.7	149.1	150.9	149.1	150.9	150.9	147.3	149.1	147.3
52.5°	100.6	100.6	97.0	97.0	97.0	97.0	95.2	95.2	95.2	91.6	91.6
55°	62.9	61.1	57.5	57.5	57.5	55.7	53.9	53.9	55.7	53.9	53.9
57.5°	35.9	34.1	30.5	30.5	30.5	28.7	28.7	26.9	26.9	26.9	26.9
60°	19.8	16.2	14.4	14.4	14.4	12.6	12.6	12.6	10.8	10.8	10.8
62.5°	9.0	7.2	7.2	5.4	5.4	5.4	5.4	5.4	3.6	3.6	3.6
65°	7.2	5.4	3.6	3.6	3.6	3.6	3.6	3.6	3.6	3.6	3.6
67.5°	5.4	3.6	3.6	3.6	3.6	3.6	3.6	1.8	1.8	3.6	1.8
70°	3.6	3.6	3.6	3.6	3.6	1.8	1.8	1.8	1.8	1.8	1.8
72.5°	3.6	3.6	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8
75°	1.8	1.8	1.8	1.8	1.8	1.8	1.8	0.0	1.8	1.8	1.8
77.5°	1.8	1.8	1.8	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	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



TEST NUMBER: P274430

CATALOG NUMBER: LD6B20DE010W2N2765 EU6B1020W2N902765 6LBSW0LI

CANDELA DISTRIBUTION (continued):

	150°	155°	157.5°	160°	165°	170°	175°	180°
0°	987.7	987.7	987.7	987.7	987.7	987.7	987.7	987.7
2.5°	1012.9	1014.7	1011.1	1012.9	1012.9	1014.7	1011.1	1007.5
5°	1043.4	1043.4	1041.6	1043.4	1041.6	1043.4	1045.2	1043.4
7.5°	1077.5	1079.3	1081.1	1079.3	1079.3	1081.1	1082.9	1081.1
10°	1111.7	1113.5	1117.0	1115.3	1118.8	1120.6	1117.0	1117.0
12.5°	1136.8	1140.4	1144.0	1142.2	1145.8	1147.6	1147.6	1145.8
15°	1149.4	1156.6	1156.6	1154.8	1158.4	1161.9	1161.9	1160.1
17.5°	1144.0	1149.4	1149.4	1151.2	1153.0	1156.6	1154.8	1154.8
20°	1122.4	1127.8	1126.0	1126.0	1127.8	1133.2	1131.4	1133.2
22.5°	1082.9	1084.7	1086.5	1086.5	1086.5	1091.9	1090.1	1088.3
25°	1030.8	1034.4	1034.4	1034.4	1036.2	1036.2	1036.2	1034.4
27.5°	969.8	971.6	973.4	969.8	969.8	973.4	973.4	969.8
30°	901.5	899.7	901.5	899.7	901.5	901.5	901.5	901.5
32.5°	822.5	820.7	822.5	818.9	820.7	820.7	822.5	818.9
35°	730.9	730.9	736.3	732.7	732.7	730.9	729.1	730.9
37.5°	641.1	639.3	639.3	635.7	635.7	641.1	637.5	634.0
40°	538.8	537.0	538.8	537.0	537.0	538.8	538.8	538.8
42.5°	438.2	436.4	438.2	434.6	434.6	436.4	432.8	431.0
45°	319.7	317.9	321.5	321.5	319.7	319.7	317.9	314.3
47.5°	219.1	219.1	220.9	219.1	219.1	220.9	219.1	220.9
50°	145.5	145.5	147.3	145.5	145.5	145.5	143.7	141.9
52.5°	93.4	91.6	91.6	91.6	91.6	91.6	89.8	89.8
55°	52.1	52.1	52.1	52.1	52.1	50.3	52.1	52.1
57.5°	25.1	25.1	25.1	25.1	25.1	25.1	23.3	25.1
60°	10.8	10.8	10.8	10.8	10.8	10.8	10.8	10.8
62.5°	3.6	3.6	3.6	3.6	3.6	3.6	3.6	3.6
65°	3.6	3.6	3.6	3.6	3.6	3.6	3.6	3.6
67.5°	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8
70°	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8
72.5°	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8
75°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
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



Report Generated By E9808895 / USPTCWHP6082093





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













(END OF REPORT)