

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: NEO-RAY

Report Number: P332790

Luminaire Tested: **S124DIW-S795D1050U835-4F0-1E-UDD-D1**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P332790
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1807-864-10,
Test Lab: INNOVATION CENTER
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: NEO-RAY
Catalog Number: S124DIW-S795D1050U835-4F0-1E-UDD-D1
Description: DEFINE 4 DIRECT-INDIRECT WALL MOUNT LED LUMINAIRE
DOWNLIGHT 795 LUMENS PER FOOT, DROP SATIN WHITE DIFFUSER
UPLIGHT 1050 LUMENS PER FOOT, FLUSH SATIN WHITE DIFFUSER
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 6876.0 lumens
Efficiency: N/A
Efficacy: 130.7 lumens/watt
Spacing Criteria (0/90/45): 1.23 / 1.28 / 1.39
Luminous Opening: Rectangular w/ Sides (W: 0.33' x L: 4' x H: 0.08')
CIE Type: General Diffuse

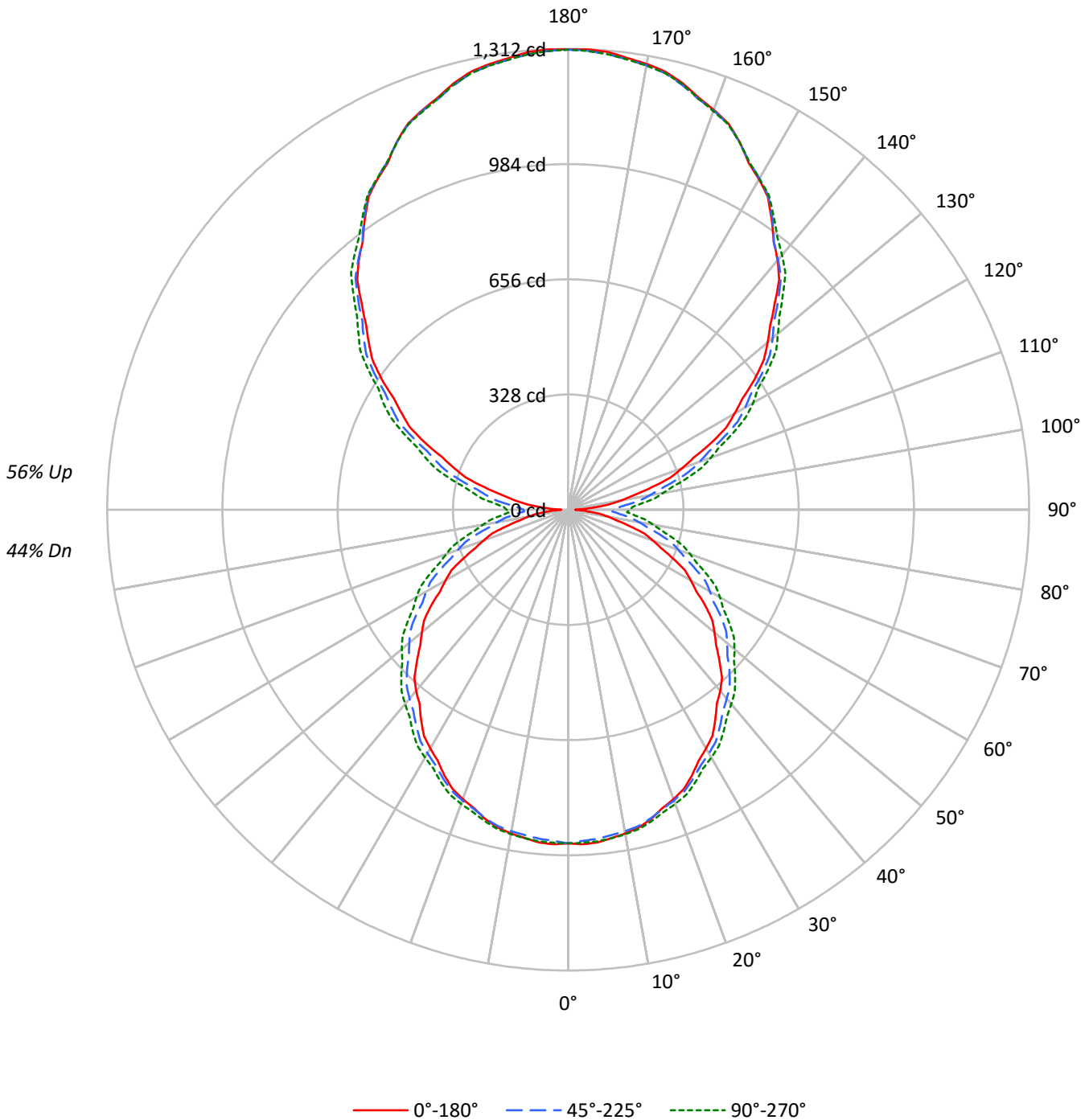
Input Watts (W): 52.6
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	0
RCR																		
0	106	106	106	106	97	97	97	97	80	80	80	64	64	64	50	50	50	44
1	95	91	87	83	87	83	79	76	69	66	64	55	53	52	43	42	41	35
2	87	79	72	67	79	72	66	62	60	55	52	48	45	42	37	35	33	28
3	79	69	61	55	72	63	56	51	52	47	43	42	39	35	33	30	28	24
4	72	61	53	46	65	56	49	43	46	41	36	37	33	30	29	26	24	20
5	66	54	46	39	60	49	42	37	41	36	31	33	29	26	26	23	21	17
6	60	48	40	34	55	44	37	32	37	31	27	30	26	23	24	20	18	15
7	56	43	35	30	51	40	33	28	33	28	24	27	23	20	21	18	16	13
8	52	39	31	26	47	36	29	24	30	25	21	25	21	18	20	17	14	12
9	48	36	28	23	44	33	26	22	28	22	19	23	19	16	18	15	13	11
10	45	33	25	21	41	30	24	19	25	20	17	21	17	14	17	14	12	10

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	7668	7668	7668
5°	7692	7494	7516
10°	7645	7371	7366
15°	7577	7230	7190
20°	7473	7073	7019
25°	7357	6898	6831
30°	7231	6723	6637
35°	7088	6544	6468
40°	6974	6374	6291
45°	6804	6217	6140
50°	6661	6036	5980
55°	6513	5866	5792
60°	6282	5649	5621
65°	6029	5415	5409
70°	5722	5149	5165
75°	5296	4857	4943
80°	4819	4575	4724
85°	4219	4325	4598



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	89.9	1.3
10°-20°	257.7	3.7
20°-30°	389.7	5.7
30°-40°	471.5	6.9
40°-50°	498.5	7.2
50°-60°	469.1	6.8
60°-70°	389.2	5.7
70°-80°	273.4	4.0
80°-90°	158.5	2.3
90°-100°	178.2	2.6
100°-110°	323.9	4.7
110°-120°	480.0	7.0
120°-130°	598.5	8.7
130°-140°	654.4	9.5
140°-150°	634.4	9.2
150°-160°	531.7	7.7
160°-170°	353.7	5.1
170°-180°	123.9	1.8
0°-30°	737.4	10.7
0°-40°	1208.8	17.6
0°-60°	2176.4	31.7
0°-90°	2997.5	43.6
90°-120°	982.0	14.3
90°-150°	2869.3	41.7
90°-180°	3879.0	56.4
0°-180°	6876.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	950	950	950	950	950	
5°	951	948	940	948	948	90
15°	912	912	909	918	918	257
25°	834	840	844	855	856	384
35°	730	742	753	767	771	457
45°	608	629	649	666	672	470
55°	476	499	531	551	558	424
65°	330	364	400	426	435	327
75°	183	223	267	296	306	195
85°	56	101	149	180	192	60
90°	20	74	128	163	175	15
95°	75	119	170	200	211	79
105°	246	269	311	340	352	261
115°	448	459	490	511	518	442
125°	648	648	672	689	695	577
135°	832	838	845	860	864	644
145°	1009	1012	1013	1018	1020	631
155°	1155	1155	1154	1158	1154	531
165°	1257	1254	1252	1258	1254	354
175°	1308	1303	1302	1308	1302	124
180°	1310	1310	1310	1310	1310	



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CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	949.9	949.9	949.9	949.9	949.9	949.9	949.9	949.9	949.9	949.9	949.9
2.5°	953.3	952.7	952.1	951.6	951.0	950.0	948.4	946.9	945.4	943.9	945.2
5°	950.9	950.2	949.5	948.8	948.1	946.9	945.2	943.6	941.9	940.3	942.2
7.5°	942.8	942.4	942.0	941.6	941.1	940.2	938.9	937.5	936.1	934.8	936.9
10°	936.0	935.8	935.6	935.3	935.1	934.4	933.2	932.0	930.8	929.6	931.8
12.5°	926.7	926.6	926.6	926.5	926.5	926.1	925.3	924.4	923.6	922.8	924.8
15°	911.6	911.8	912.0	912.3	912.5	912.3	911.6	910.9	910.1	909.4	911.6
17.5°	890.9	891.6	892.3	893.1	893.8	894.0	893.9	893.8	893.6	893.5	895.7
20°	876.5	877.2	877.9	878.6	879.3	879.8	880.0	880.2	880.5	880.7	883.1
22.5°	860.3	861.2	862.1	863.0	863.9	864.6	865.0	865.4	865.8	866.3	868.6
25°	833.9	835.3	836.8	838.2	839.6	840.7	841.4	842.1	842.8	843.5	846.1
27.5°	804.6	806.6	808.7	810.8	812.9	814.5	815.6	816.6	817.7	818.8	821.2
30°	785.0	786.9	788.8	790.7	792.6	794.3	796.0	797.6	799.3	800.9	803.5
32.5°	763.7	766.0	768.3	770.5	772.8	774.8	776.7	778.5	780.4	782.2	785.2
35°	729.7	732.5	735.4	738.2	741.0	743.6	746.0	748.4	750.7	753.1	756.4
37.5°	695.4	698.7	702.0	705.2	708.5	711.6	714.5	717.4	720.4	723.3	726.7
40°	673.3	676.4	679.4	682.5	685.6	688.8	692.1	695.4	698.7	702.0	705.6
42.5°	647.8	651.2	654.7	658.1	661.6	665.2	669.1	673.0	676.9	680.7	684.7
45°	608.4	612.9	617.4	621.9	626.4	630.9	635.4	639.9	644.3	648.8	652.9
47.5°	570.8	575.4	580.0	584.7	589.3	594.2	599.4	604.6	609.8	615.0	619.2
50°	543.5	548.7	553.9	559.1	564.3	569.5	574.7	579.9	585.1	590.3	595.1
52.5°	516.3	521.5	526.7	531.9	537.1	542.7	548.6	554.6	560.6	566.5	571.2
55°	476.5	481.5	486.5	491.4	496.4	502.4	509.5	516.6	523.7	530.8	535.5
57.5°	432.1	438.2	444.4	450.5	456.6	463.2	470.3	477.3	484.4	491.4	497.0
60°	403.1	409.3	415.4	421.6	427.7	434.7	442.5	450.3	458.1	465.9	471.3
62.5°	375.0	381.8	388.5	395.2	401.9	409.2	417.0	424.8	432.6	440.4	445.8
65°	329.7	337.3	344.9	352.4	360.0	367.8	375.8	383.9	391.9	399.9	405.8
67.5°	286.1	294.2	302.2	310.2	318.3	326.6	335.2	343.8	352.4	361.0	367.0
70°	256.3	264.4	272.4	280.5	288.5	297.0	306.0	315.0	323.9	332.9	339.3
72.5°	227.4	235.6	243.9	252.1	260.3	269.2	278.8	288.3	297.9	307.4	313.6
75°	183.0	191.7	200.4	209.2	217.9	227.3	237.2	247.1	257.1	267.0	273.6
77.5°	141.5	150.7	160.0	169.3	178.5	188.4	198.8	209.2	219.6	230.0	236.7
80°	115.9	125.4	134.8	144.3	153.8	163.7	174.1	184.5	194.9	205.3	212.4
82.5°	90.4	100.2	110.1	119.9	129.7	139.9	150.3	160.7	171.1	181.5	188.7
85°	56.4	66.3	76.2	86.2	96.1	106.4	117.0	127.6	138.3	148.9	156.0
87.5°	32.1	42.2	52.4	62.5	72.6	83.1	93.8	104.5	115.2	125.9	133.1
90°	20.1	32.0	43.9	55.9	67.8	79.7	91.7	103.7	115.6	127.6	135.8
92.5°	37.8	49.2	60.5	71.9	83.2	94.6	106.0	117.5	128.9	140.3	147.8
95°	74.6	84.4	94.3	104.1	113.9	124.5	135.7	147.0	158.3	169.5	176.6
97.5°	118.7	127.1	135.4	143.7	152.1	161.9	173.4	184.8	196.3	207.7	214.7
100°	153.5	160.6	167.6	174.7	181.7	190.9	202.1	213.3	224.6	235.8	242.7
102.5°	190.8	196.6	202.3	208.1	213.8	222.1	233.0	243.9	254.7	265.6	272.4
105°	245.6	250.6	255.5	260.5	265.4	272.7	282.4	292.0	301.7	311.3	317.9
107.5°	305.2	309.3	313.5	317.6	321.8	328.0	336.4	344.8	353.3	361.7	368.1
110°	344.8	348.6	352.4	356.1	359.9	365.8	373.8	381.9	389.9	398.0	403.0



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CANDELA DISTRIBUTION (continued):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	386.1	389.2	392.2	395.2	398.2	403.5	411.0	418.4	425.9	433.4	438.6
115°	448.1	450.2	452.3	454.5	456.6	461.2	468.3	475.4	482.5	489.7	494.6
117.5°	507.4	508.9	510.3	511.8	513.2	517.3	524.1	530.8	537.5	544.3	548.4
120°	546.3	547.9	549.5	551.1	552.7	556.6	562.8	569.0	575.2	581.3	584.9
122.5°	587.6	588.1	588.6	589.1	589.6	593.0	599.1	605.3	611.4	617.6	621.6
125°	647.5	647.3	647.1	646.8	646.6	649.3	655.0	660.7	666.4	672.1	676.1
127.5°	702.6	703.1	703.5	704.0	704.4	706.7	710.9	715.1	719.2	723.4	727.2
130°	740.7	741.1	741.6	742.0	742.4	744.6	748.3	752.1	755.9	759.7	763.5
132.5°	780.4	780.7	780.9	781.2	781.4	783.0	785.8	788.7	791.5	794.4	798.0
135°	831.8	833.2	834.5	835.9	837.2	838.7	840.4	842.0	843.7	845.3	848.7
137.5°	888.9	889.3	889.7	890.1	890.5	891.3	892.5	893.6	894.8	896.0	898.8
140°	927.0	927.2	927.5	927.7	927.9	928.1	928.4	928.6	928.8	929.1	931.9
142.5°	961.0	961.4	961.8	962.2	962.6	962.7	962.4	962.0	961.7	961.4	964.0
145°	1009.0	1009.7	1010.4	1011.0	1011.7	1012.1	1012.4	1012.6	1012.8	1013.0	1014.2
147.5°	1056.9	1057.7	1058.5	1059.4	1060.2	1060.6	1060.4	1060.2	1060.0	1059.8	1059.9
150°	1086.0	1086.7	1087.4	1088.0	1088.7	1089.0	1089.0	1089.0	1089.0	1089.0	1089.0
152.5°	1112.7	1113.2	1113.7	1114.2	1114.7	1115.0	1115.2	1115.4	1115.6	1115.8	1116.3
155°	1154.9	1154.9	1154.9	1154.9	1154.9	1154.8	1154.5	1154.3	1154.1	1153.9	1154.8
157.5°	1190.5	1190.1	1189.7	1189.3	1188.9	1188.7	1188.6	1188.6	1188.5	1188.5	1189.2
160°	1211.6	1211.4	1211.1	1210.9	1210.7	1210.5	1210.2	1210.0	1209.8	1209.6	1210.2
162.5°	1231.0	1230.5	1229.9	1229.3	1228.7	1228.3	1228.1	1227.9	1227.6	1227.4	1228.6
165°	1257.2	1256.5	1255.8	1255.2	1254.5	1253.9	1253.5	1253.0	1252.6	1252.1	1253.5
167.5°	1277.2	1276.3	1275.4	1274.4	1273.5	1273.0	1273.1	1273.1	1273.1	1273.2	1274.5
170°	1288.6	1287.5	1286.3	1285.2	1284.1	1283.6	1283.9	1284.1	1284.3	1284.5	1285.9
172.5°	1296.7	1295.7	1294.8	1293.9	1292.9	1292.5	1292.5	1292.6	1292.6	1292.6	1294.2
175°	1307.8	1306.7	1305.6	1304.5	1303.3	1302.7	1302.4	1302.2	1302.0	1301.8	1303.3
177.5°	1311.5	1310.6	1309.7	1308.8	1307.9	1307.4	1307.4	1307.4	1307.4	1307.4	1308.7
180°	1309.9	1309.9	1309.9	1309.9	1309.9	1309.9	1309.9	1309.9	1309.9	1309.9	1309.9



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CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
0°	949.9	949.9	949.9	949.9	949.9	949.9	949.9	949.9
2.5°	946.5	947.9	949.2	949.8	949.6	949.4	949.2	949.0
5°	944.1	946.0	947.8	948.7	948.4	948.2	948.0	947.7
7.5°	939.0	941.1	943.3	944.2	944.0	943.7	943.5	943.3
10°	933.9	936.0	938.2	939.1	938.9	938.6	938.4	938.2
12.5°	926.7	928.7	930.6	931.5	931.5	931.4	931.4	931.3
15°	913.7	915.8	917.9	918.9	918.7	918.4	918.2	917.9
17.5°	897.8	900.0	902.2	903.2	903.0	902.8	902.6	902.4
20°	885.4	887.8	890.2	891.4	891.4	891.4	891.4	891.4
22.5°	871.0	873.3	875.7	877.1	877.5	877.8	878.2	878.6
25°	848.7	851.3	853.9	855.3	855.5	855.8	856.0	856.3
27.5°	823.6	826.0	828.5	829.8	830.1	830.4	830.7	830.9
30°	806.1	808.7	811.3	812.9	813.4	813.8	814.3	814.8
32.5°	788.2	791.2	794.1	795.9	796.3	796.8	797.3	797.8
35°	759.7	763.0	766.3	768.3	769.0	769.7	770.5	771.2
37.5°	730.0	733.4	736.7	738.8	739.5	740.3	741.0	741.8
40°	709.1	712.7	716.2	718.4	719.4	720.3	721.3	722.2
42.5°	688.6	692.5	696.4	698.8	699.5	700.3	701.1	701.8
45°	656.9	660.9	664.9	667.5	668.7	669.9	671.1	672.2
47.5°	623.3	627.5	631.7	634.4	635.9	637.3	638.7	640.1
50°	599.8	604.5	609.2	612.3	613.7	615.2	616.6	618.0
52.5°	576.0	580.7	585.4	588.5	589.9	591.3	592.7	594.2
55°	540.2	545.0	549.7	552.8	554.2	555.6	557.0	558.4
57.5°	502.7	508.3	513.9	517.4	518.7	520.0	521.4	522.7
60°	476.8	482.2	487.6	491.3	493.2	495.1	497.0	498.9
62.5°	451.2	456.7	462.1	465.8	467.7	469.6	471.4	473.3
65°	411.8	417.7	423.6	427.5	429.4	431.3	433.1	435.0
67.5°	373.0	379.0	385.0	388.9	390.8	392.6	394.5	396.3
70°	345.7	352.1	358.5	362.5	364.1	365.8	367.4	369.1
72.5°	319.8	326.0	332.2	336.2	338.0	339.9	341.7	343.6
75°	280.2	286.8	293.5	297.8	300.0	302.1	304.2	306.3
77.5°	243.4	250.1	256.8	261.3	263.6	265.8	268.1	270.4
80°	219.5	226.6	233.7	238.1	240.0	241.9	243.8	245.7
82.5°	196.0	203.3	210.6	215.3	217.3	219.4	221.5	223.6
85°	163.1	170.2	177.3	182.0	184.4	186.7	189.1	191.5
87.5°	140.2	147.3	154.4	159.1	161.2	163.4	165.6	167.8
90°	144.0	152.2	160.4	165.7	168.0	170.4	172.7	175.1
92.5°	155.3	162.7	170.2	175.0	177.2	179.4	181.5	183.7
95°	183.6	190.7	197.8	202.4	204.5	206.6	208.7	210.9
97.5°	221.7	228.7	235.7	240.2	242.3	244.3	246.3	248.4
100°	249.5	256.3	263.2	267.4	269.1	270.7	272.4	274.0
102.5°	279.3	286.1	292.9	297.3	299.4	301.4	303.4	305.4
105°	324.5	331.1	337.6	342.2	344.8	347.4	349.9	352.5
107.5°	374.6	381.0	387.4	391.5	393.2	394.8	396.5	398.1
110°	407.9	412.9	417.9	421.7	424.3	426.8	429.4	432.0



TEST NUMBER: P332790

CATALOG NUMBER: S124DIW-S795D1050U835-4F0-1E-UDD-D1

CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
112.5°	443.7	448.9	454.1	457.7	459.7	461.7	463.7	465.8
115°	499.6	504.6	509.6	512.8	514.2	515.6	517.0	518.5
117.5°	552.6	556.7	560.9	563.7	565.1	566.5	568.0	569.4
120°	588.5	592.1	595.7	598.7	601.1	603.4	605.7	608.1
122.5°	625.5	629.5	633.4	635.9	636.8	637.7	638.5	639.4
125°	680.1	684.2	688.2	690.7	691.7	692.7	693.6	694.6
127.5°	731.0	734.8	738.6	741.2	742.4	743.7	744.9	746.1
130°	767.3	771.1	774.9	777.1	777.6	778.1	778.6	779.1
132.5°	801.6	805.2	808.8	811.2	812.2	813.3	814.3	815.4
135°	852.0	855.3	858.7	860.7	861.4	862.2	862.9	863.7
137.5°	901.7	904.6	907.4	909.5	910.8	912.1	913.5	914.8
140°	934.8	937.6	940.5	942.4	943.3	944.3	945.2	946.2
142.5°	966.7	969.3	972.0	973.8	974.7	975.7	976.6	977.6
145°	1015.4	1016.6	1017.8	1018.5	1018.8	1019.1	1019.4	1019.6
147.5°	1059.9	1059.9	1059.9	1060.2	1060.7	1061.2	1061.7	1062.3
150°	1089.0	1089.0	1089.0	1088.9	1088.7	1088.5	1088.2	1088.0
152.5°	1116.8	1117.4	1117.9	1117.9	1117.3	1116.7	1116.1	1115.6
155°	1155.7	1156.6	1157.5	1157.5	1156.6	1155.7	1154.8	1153.9
157.5°	1189.9	1190.5	1191.2	1191.2	1190.4	1189.6	1188.9	1188.1
160°	1210.9	1211.6	1212.3	1212.0	1210.9	1209.8	1208.7	1207.5
162.5°	1229.8	1231.0	1232.3	1232.3	1231.2	1230.1	1228.9	1227.8
165°	1254.8	1256.2	1257.5	1257.7	1256.8	1255.9	1255.0	1254.1
167.5°	1275.9	1277.2	1278.6	1278.6	1277.2	1275.8	1274.4	1273.0
170°	1287.2	1288.6	1289.9	1289.8	1288.3	1286.7	1285.1	1283.5
172.5°	1295.7	1297.2	1298.8	1298.7	1297.2	1295.6	1294.0	1292.4
175°	1304.9	1306.5	1308.1	1308.1	1306.5	1304.9	1303.3	1301.8
177.5°	1310.0	1311.2	1312.5	1312.4	1310.9	1309.5	1308.1	1306.6
180°	1309.9	1309.9	1309.9	1309.9	1309.9	1309.9	1309.9	1309.9

(END OF REPORT)