

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: P332789-830

Luminaire Tested: **S124DIW-S795D1050U830-4F0-1E-UDD-D**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P332789-830
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1807-864-6,
Test Lab: INNOVATION CENTER
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: NEO-RAY
Catalog Number: S124DIW-S795D1050U830-4F0-1E-UDD-D
Description: DEFINE 4 DIRECT-INDIRECT WALL MOUNT LED LUMINAIRE
DOWNLIGHT 795 LUMENS PER FOOT, DROP SATIN WHITE DIFFUSER
UPLIGHT 1050 LUMENS PER FOOT, NO LENS
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 7005.1 lumens
Efficiency: N/A
Efficacy: 133.2 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

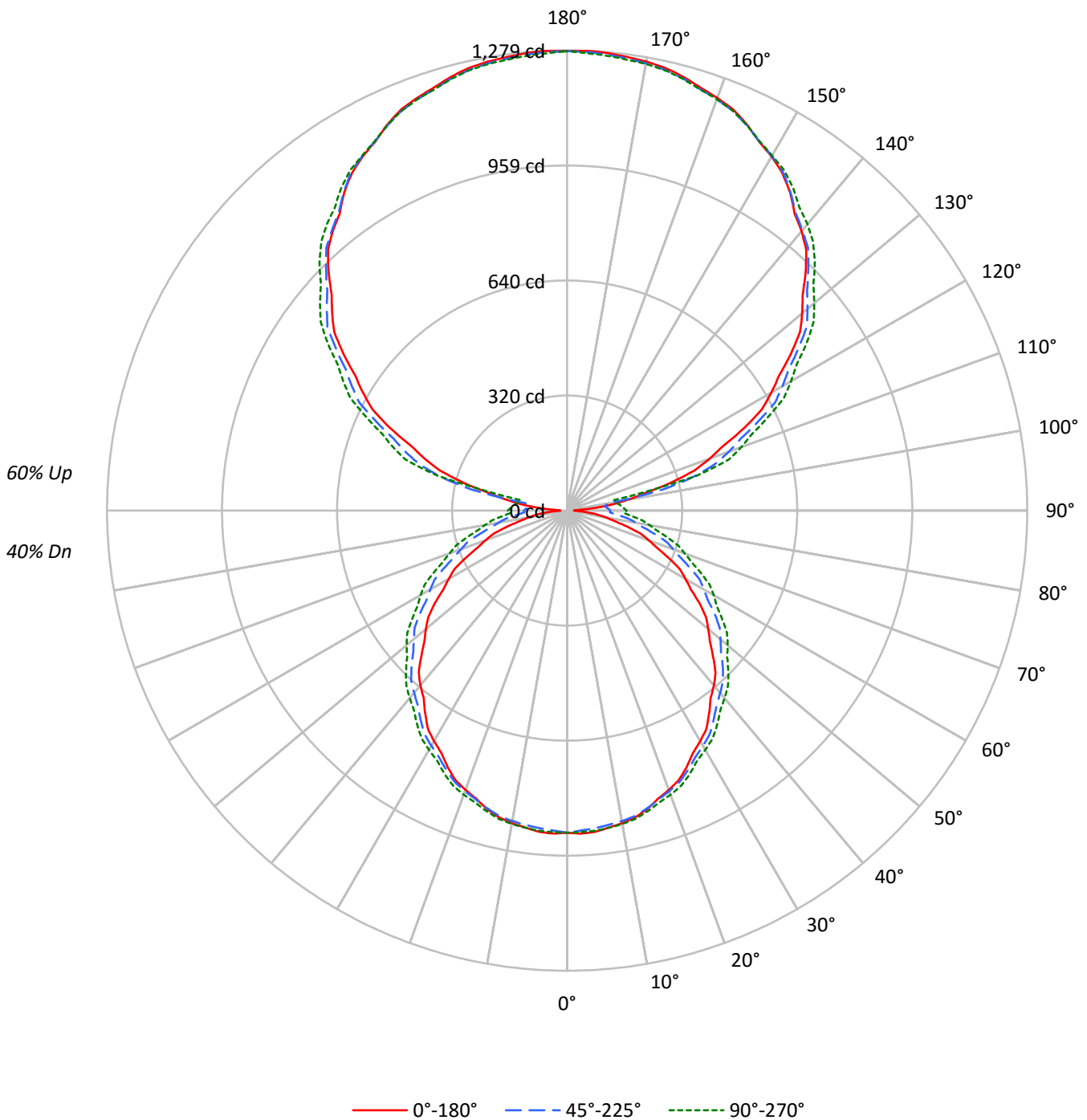
Input Watts (W): 52.6
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Luminous Intensity Polar Plot





TEST NUMBER: P332789-830

CATALOG NUMBER: S124DIW-S795D1050U830-4F0-1E-UDD-D

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	105	105	105	105	95	95	95	95	78	78	78	62	62	62	47	47	47	40
1	95	90	86	82	86	82	79	75	67	65	62	53	51	50	40	39	38	32
2	86	78	72	66	78	71	66	61	58	54	51	46	43	41	35	33	32	26
3	78	68	61	55	71	62	56	51	51	46	42	41	37	34	31	28	26	22
4	71	60	52	46	65	55	48	43	45	40	36	36	32	29	27	25	23	19
5	65	54	45	39	59	49	42	36	40	35	31	32	28	25	24	22	19	16
6	60	48	40	34	54	44	37	31	36	31	26	29	25	22	22	19	17	14
7	55	43	35	29	50	39	32	27	33	27	23	26	22	19	20	17	15	12
8	51	39	31	26	47	36	29	24	30	24	20	24	20	17	18	16	13	11
9	48	35	28	23	43	33	26	21	27	22	18	22	18	15	17	14	12	10
10	45	32	25	20	40	30	23	19	25	20	16	20	16	14	16	13	11	9

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	7228	7228	7228
5°	7250	7064	7083
10°	7205	6948	6943
15°	7141	6814	6777
20°	7044	6667	6616
25°	6934	6501	6439
30°	6815	6336	6256
35°	6681	6168	6097
40°	6573	6008	5930
45°	6413	5859	5787
50°	6278	5689	5636
55°	6138	5529	5459
60°	5920	5324	5298
65°	5683	5104	5098
70°	5394	4853	4868
75°	4992	4579	4659
80°	4540	4312	4453
85°	3980	4075	4334



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	84.8	1.2
10°-20°	242.9	3.5
20°-30°	367.3	5.2
30°-40°	444.4	6.3
40°-50°	469.8	6.7
50°-60°	442.2	6.3
60°-70°	366.8	5.2
70°-80°	257.7	3.7
80°-90°	149.4	2.1
90°-100°	130.2	1.9
100°-110°	342.5	4.9
110°-120°	575.6	8.2
120°-130°	700.4	10.0
130°-140°	733.9	10.5
140°-150°	678.6	9.7
150°-160°	545.6	7.8
160°-170°	351.9	5.0
170°-180°	121.3	1.7
0°-30°	695.0	9.9
0°-40°	1139.4	16.3
0°-60°	2051.4	29.3
0°-90°	2825.3	40.3
90°-120°	1048.2	15.0
90°-150°	3161.1	45.1
90°-180°	4180.0	59.7
0°-180°	7005.1	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	895	895	895	895	895	
5°	896	893	886	894	893	85
15°	859	860	857	866	865	242
25°	786	792	795	806	807	362
35°	688	700	710	723	727	431
45°	573	593	612	628	634	443
55°	449	471	500	520	526	400
65°	311	343	377	401	410	308
75°	172	210	252	279	289	183
85°	53	95	140	169	180	57
90°	19	70	120	154	165	13
95°	66	68	108	140	151	78
105°	296	323	364	394	372	311
115°	543	556	586	609	617	534
125°	758	762	784	806	813	677
135°	938	938	948	965	974	723
145°	1080	1082	1082	1089	1095	675
155°	1183	1184	1181	1185	1182	545
165°	1248	1244	1243	1250	1242	353
175°	1277	1271	1272	1280	1269	122
180°	1277	1277	1277	1277	1277	



TEST NUMBER: P332789-830

CATALOG NUMBER: S124DIW-S795D1050U830-4F0-1E-UDD-D

CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	895.3	895.3	895.3	895.3	895.3	895.3	895.3	895.3	895.3	895.3	895.3
2.5°	898.5	898.0	897.4	896.9	896.4	895.4	893.9	892.5	891.1	889.7	890.9
5°	896.3	895.6	894.9	894.3	893.6	892.5	890.9	889.4	887.8	886.3	888.1
7.5°	888.6	888.3	887.9	887.5	887.0	886.2	885.0	883.6	882.3	881.1	883.1
10°	882.2	882.0	881.8	881.6	881.4	880.7	879.6	878.4	877.3	876.2	878.3
12.5°	873.5	873.4	873.4	873.3	873.3	872.9	872.1	871.3	870.5	869.8	871.7
15°	859.2	859.4	859.6	859.9	860.1	859.9	859.2	858.6	857.8	857.1	859.2
17.5°	839.7	840.4	841.0	841.8	842.4	842.6	842.5	842.4	842.3	842.2	844.2
20°	826.1	826.8	827.5	828.1	828.8	829.2	829.4	829.6	829.9	830.1	832.4
22.5°	810.9	811.7	812.6	813.4	814.3	814.9	815.3	815.7	816.1	816.5	818.7
25°	786.0	787.3	788.7	790.0	791.4	792.4	793.1	793.7	794.4	795.0	797.5
27.5°	758.4	760.3	762.2	764.2	766.2	767.7	768.7	769.7	770.7	771.8	774.0
30°	739.9	741.7	743.5	745.3	747.1	748.7	750.3	751.8	753.4	754.9	757.3
32.5°	719.8	722.0	724.2	726.2	728.4	730.3	732.1	733.8	735.6	737.3	740.1
35°	687.8	690.4	693.1	695.8	698.4	700.9	703.1	705.4	707.6	709.8	712.9
37.5°	655.4	658.6	661.7	664.7	667.8	670.7	673.4	676.2	679.0	681.7	684.9
40°	634.6	637.5	640.4	643.3	646.2	649.2	652.3	655.4	658.6	661.7	665.1
42.5°	610.6	613.8	617.1	620.3	623.6	627.0	630.7	634.3	638.0	641.6	645.4
45°	573.4	577.7	581.9	586.2	590.4	594.7	598.9	603.1	607.3	611.5	615.4
47.5°	538.0	542.3	546.7	551.1	555.4	560.1	565.0	569.9	574.8	579.7	583.6
50°	512.3	517.2	522.1	527.0	531.9	536.8	541.7	546.6	551.5	556.4	560.9
52.5°	486.6	491.5	496.4	501.3	506.2	511.5	517.1	522.7	528.4	534.0	538.4
55°	449.1	453.8	458.5	463.2	467.9	473.5	480.2	486.9	493.6	500.3	504.7
57.5°	407.3	413.0	418.9	424.6	430.4	436.6	443.3	449.9	456.6	463.2	468.4
60°	379.9	385.8	391.5	397.4	403.1	409.7	417.1	424.4	431.8	439.1	444.2
62.5°	353.5	359.9	366.2	372.5	378.8	385.7	393.0	400.4	407.7	415.1	420.2
65°	310.8	317.9	325.1	332.2	339.3	346.7	354.2	361.8	369.4	376.9	382.5
67.5°	269.7	277.3	284.8	292.4	300.0	307.8	315.9	324.0	332.2	340.3	345.9
70°	241.6	249.2	256.7	264.4	271.9	279.9	288.4	296.9	305.3	313.8	319.8
72.5°	214.3	222.1	229.9	237.6	245.3	253.7	262.8	271.7	280.8	289.7	295.6
75°	172.5	180.7	188.9	197.2	205.4	214.2	223.6	232.9	242.3	251.7	257.9
77.5°	133.4	142.0	150.8	159.6	168.2	177.6	187.4	197.2	207.0	216.8	223.1
80°	109.2	118.2	127.1	136.0	145.0	154.3	164.1	173.9	183.7	193.5	200.2
82.5°	85.2	94.4	103.8	113.0	122.2	131.9	141.7	151.5	161.3	171.1	177.9
85°	53.2	62.5	71.8	81.2	90.6	100.3	110.3	120.3	130.4	140.3	147.0
87.5°	30.3	39.8	49.4	58.9	68.4	78.3	88.4	98.5	108.6	118.7	125.5
90°	18.9	30.2	41.4	52.7	63.9	75.1	86.4	97.7	109.0	120.3	128.0
92.5°	27.2	35.4	43.5	51.7	59.9	69.6	80.9	92.1	103.4	114.7	122.2
95°	65.6	65.7	65.8	66.0	66.1	70.9	80.2	89.5	98.9	108.2	115.6
97.5°	123.4	134.2	145.1	155.8	166.6	164.8	150.1	135.5	120.8	106.2	112.2
100°	167.7	177.3	186.9	196.5	206.1	200.6	180.0	159.4	138.8	118.2	120.6
102.5°	218.1	225.9	233.8	241.7	249.6	255.9	260.5	265.2	269.9	274.7	241.6
105°	296.4	302.2	307.9	313.7	319.4	326.9	336.2	345.5	354.8	364.1	371.6
107.5°	371.0	375.2	379.6	383.8	388.1	394.8	404.1	413.4	422.6	431.9	438.3
110°	420.6	424.3	428.1	431.9	435.5	442.0	451.1	460.1	469.2	478.2	483.8



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CANDELA DISTRIBUTION (continued):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	468.6	472.6	476.5	480.4	484.3	490.2	498.3	506.3	514.3	522.4	527.3
115°	542.7	545.4	548.0	550.6	553.3	558.1	565.0	571.8	578.8	585.7	591.1
117.5°	610.3	612.4	614.4	616.4	618.5	623.1	630.2	637.3	644.4	651.5	656.1
120°	655.3	656.9	658.4	659.9	661.4	665.3	671.6	677.8	684.0	690.3	695.1
122.5°	698.1	698.8	699.4	700.0	700.7	704.2	710.6	717.0	723.4	729.8	734.5
125°	758.5	759.0	759.7	760.3	760.9	763.8	768.9	774.1	779.3	784.4	789.3
127.5°	816.3	816.2	816.2	816.2	816.2	818.9	824.2	829.3	834.6	839.9	843.8
130°	852.9	852.9	852.9	852.9	852.9	855.0	859.2	863.4	867.6	871.8	876.0
132.5°	887.3	887.5	887.6	887.8	888.0	889.9	893.5	897.2	900.8	904.5	908.5
135°	937.8	937.6	937.5	937.3	937.0	938.1	940.6	942.9	945.4	947.7	951.8
137.5°	983.5	983.4	983.3	983.1	983.0	983.7	985.4	987.1	988.8	990.5	994.2
140°	1013.3	1013.5	1013.7	1013.9	1014.1	1014.6	1015.2	1015.9	1016.4	1017.1	1020.7
142.5°	1039.2	1040.0	1040.7	1041.4	1042.2	1042.5	1042.6	1042.8	1042.9	1043.0	1046.0
145°	1080.2	1080.5	1080.9	1081.4	1081.8	1081.9	1081.9	1081.9	1081.9	1081.9	1083.5
147.5°	1112.8	1113.7	1114.7	1115.7	1116.6	1117.0	1116.8	1116.6	1116.3	1116.2	1116.5
150°	1136.4	1137.1	1137.7	1138.3	1139.0	1139.2	1139.0	1138.8	1138.5	1138.3	1138.3
152.5°	1155.6	1156.1	1156.8	1157.4	1158.0	1158.2	1157.8	1157.4	1157.1	1156.7	1157.0
155°	1183.2	1183.5	1183.6	1183.8	1184.0	1183.8	1183.2	1182.6	1181.9	1181.3	1182.1
157.5°	1206.7	1206.5	1206.5	1206.3	1206.2	1205.8	1205.0	1204.3	1203.6	1202.9	1204.0
160°	1220.4	1219.8	1219.2	1218.5	1217.9	1217.5	1217.3	1217.0	1216.8	1216.6	1217.9
162.5°	1232.7	1231.9	1231.1	1230.2	1229.5	1228.9	1228.7	1228.5	1228.3	1228.0	1229.4
165°	1248.1	1247.1	1246.0	1244.9	1243.9	1243.4	1243.4	1243.4	1243.4	1243.4	1245.1
167.5°	1260.4	1259.2	1258.2	1257.1	1255.9	1255.4	1255.2	1255.1	1255.0	1254.8	1256.7
170°	1267.2	1265.9	1264.7	1263.4	1262.2	1261.6	1261.8	1262.1	1262.3	1262.4	1264.1
172.5°	1271.8	1270.5	1269.2	1268.0	1266.7	1266.2	1266.4	1266.6	1266.9	1267.1	1268.8
175°	1276.8	1275.5	1274.2	1273.0	1271.7	1271.2	1271.4	1271.6	1271.8	1272.1	1273.9
177.5°	1279.0	1277.9	1276.7	1275.5	1274.3	1273.9	1274.2	1274.6	1274.9	1275.3	1276.6
180°	1276.8	1276.8	1276.8	1276.8	1276.8	1276.8	1276.8	1276.8	1276.8	1276.8	1276.8



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CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
0°	895.3	895.3	895.3	895.3	895.3	895.3	895.3	895.3
2.5°	892.1	893.4	894.7	895.2	895.0	894.8	894.7	894.5
5°	889.9	891.6	893.3	894.2	893.9	893.7	893.5	893.2
7.5°	885.0	887.0	889.1	889.9	889.8	889.5	889.3	889.1
10°	880.2	882.2	884.3	885.1	885.0	884.7	884.5	884.3
12.5°	873.5	875.3	877.1	878.0	878.0	877.9	877.9	877.8
15°	861.2	863.2	865.2	866.1	865.9	865.6	865.4	865.2
17.5°	846.2	848.3	850.4	851.3	851.1	850.9	850.7	850.6
20°	834.5	836.8	839.1	840.2	840.2	840.2	840.2	840.2
22.5°	821.0	823.1	825.4	826.7	827.1	827.4	827.7	828.1
25°	799.9	802.4	804.8	806.2	806.3	806.6	806.8	807.1
27.5°	776.3	778.5	780.9	782.1	782.4	782.7	783.0	783.2
30°	759.8	762.2	764.7	766.2	766.7	767.0	767.5	768.0
32.5°	742.9	745.7	748.5	750.2	750.5	751.0	751.5	752.0
35°	716.0	719.2	722.3	724.2	724.8	725.5	726.2	726.9
37.5°	688.1	691.3	694.4	696.4	697.0	697.8	698.4	699.2
40°	668.4	671.8	675.0	677.1	678.1	678.9	679.9	680.7
42.5°	649.0	652.7	656.4	658.6	659.3	660.1	660.8	661.5
45°	619.2	622.9	626.7	629.1	630.3	631.4	632.5	633.6
47.5°	587.5	591.4	595.4	597.9	599.4	600.7	602.0	603.3
50°	565.3	569.8	574.2	577.1	578.4	579.9	581.2	582.5
52.5°	542.9	547.3	551.8	554.7	556.0	557.3	558.6	560.1
55°	509.2	513.7	518.1	521.0	522.4	523.7	525.0	526.3
57.5°	473.8	479.1	484.4	487.7	488.9	490.1	491.4	492.7
60°	449.4	454.5	459.6	463.1	464.9	466.7	468.4	470.2
62.5°	425.3	430.5	435.5	439.0	440.8	442.6	444.3	446.1
65°	388.1	393.7	399.3	402.9	404.7	406.5	408.2	410.0
67.5°	351.6	357.2	362.9	366.6	368.3	370.0	371.8	373.5
70°	325.8	331.9	337.9	341.7	343.2	344.8	346.3	347.9
72.5°	301.4	307.3	313.1	316.9	318.6	320.4	322.1	323.9
75°	264.1	270.3	276.6	280.7	282.8	284.7	286.7	288.7
77.5°	229.4	235.7	242.0	246.3	248.5	250.5	252.7	254.9
80°	206.9	213.6	220.3	224.4	226.2	228.0	229.8	231.6
82.5°	184.7	191.6	198.5	202.9	204.8	206.8	208.8	210.8
85°	153.7	160.4	167.1	171.5	173.8	176.0	178.2	180.5
87.5°	132.1	138.8	145.5	150.0	151.9	154.0	156.1	158.2
90°	135.7	143.5	151.2	156.2	158.3	160.6	162.8	165.0
92.5°	129.8	137.3	144.9	149.6	151.5	153.4	155.2	157.1
95°	122.8	130.1	137.4	142.1	144.4	146.6	148.8	151.0
97.5°	118.1	124.1	130.1	134.1	136.3	138.4	140.5	142.6
100°	123.0	125.5	127.8	130.0	131.7	133.5	135.3	137.0
102.5°	208.5	175.4	142.3	126.7	128.5	130.3	132.0	133.7
105°	379.1	386.5	394.1	394.8	389.0	383.1	377.3	371.5
107.5°	444.7	451.1	457.5	461.9	464.3	466.7	469.1	471.6
110°	489.4	494.9	500.5	504.4	506.9	509.3	511.7	514.2



TEST NUMBER: P332789-830

CATALOG NUMBER: S124DIW-S795D1050U830-4F0-1E-UDD-D

CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
112.5°	532.2	537.0	541.9	545.5	548.2	550.7	553.4	555.9
115°	596.3	601.7	607.0	610.5	612.0	613.6	615.1	616.7
117.5°	660.6	665.2	669.7	672.9	674.6	676.3	678.0	679.7
120°	700.0	704.9	709.8	712.9	714.3	715.7	717.0	718.4
122.5°	739.2	743.9	748.7	751.6	752.8	753.9	755.2	756.3
125°	794.2	799.0	803.9	807.1	808.6	810.2	811.7	813.3
127.5°	847.6	851.5	855.5	858.0	859.4	860.7	862.0	863.4
130°	880.2	884.5	888.6	891.5	892.8	894.1	895.4	896.8
132.5°	912.6	916.6	920.7	923.2	924.4	925.6	926.8	927.9
135°	955.7	959.7	963.7	966.6	968.4	970.1	971.9	973.6
137.5°	998.0	1001.6	1005.4	1007.8	1008.7	1009.7	1010.7	1011.7
140°	1024.2	1027.7	1031.2	1033.7	1035.0	1036.3	1037.6	1039.0
142.5°	1049.0	1052.1	1055.1	1057.1	1058.0	1059.0	1060.0	1060.9
145°	1085.1	1086.7	1088.2	1089.6	1090.9	1092.2	1093.5	1094.9
147.5°	1116.8	1117.2	1117.6	1118.2	1119.1	1120.0	1121.0	1121.9
150°	1138.3	1138.3	1138.3	1138.4	1138.6	1138.9	1139.1	1139.3
152.5°	1157.3	1157.6	1158.0	1158.1	1158.0	1157.8	1157.7	1157.6
155°	1183.0	1183.8	1184.7	1184.8	1184.1	1183.6	1182.9	1182.2
157.5°	1205.0	1206.2	1207.3	1207.3	1206.2	1205.0	1204.0	1202.9
160°	1219.2	1220.4	1221.7	1221.7	1220.4	1219.2	1217.9	1216.6
162.5°	1230.6	1231.9	1233.1	1233.1	1231.6	1230.2	1228.8	1227.3
165°	1246.8	1248.5	1250.2	1250.0	1248.1	1246.2	1244.3	1242.4
167.5°	1258.6	1260.5	1262.3	1262.2	1260.1	1257.9	1255.8	1253.7
170°	1265.8	1267.5	1269.2	1269.0	1266.9	1264.8	1262.6	1260.6
172.5°	1270.5	1272.1	1273.8	1273.6	1271.2	1268.9	1266.7	1264.3
175°	1275.8	1277.7	1279.7	1279.3	1276.8	1274.2	1271.7	1269.1
177.5°	1278.0	1279.3	1280.7	1280.3	1278.3	1276.3	1274.2	1272.2
180°	1276.8	1276.8	1276.8	1276.8	1276.8	1276.8	1276.8	1276.8

(END OF REPORT)