

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: P332789-940

Luminaire Tested: **S124DIW-S795D1050U940-4F0-1E-UDD-D**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P332789-940
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-S795D1050U940-4F0-1E-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: 6627.3 lumens
Efficiency: N/A
Efficacy: 126.0 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

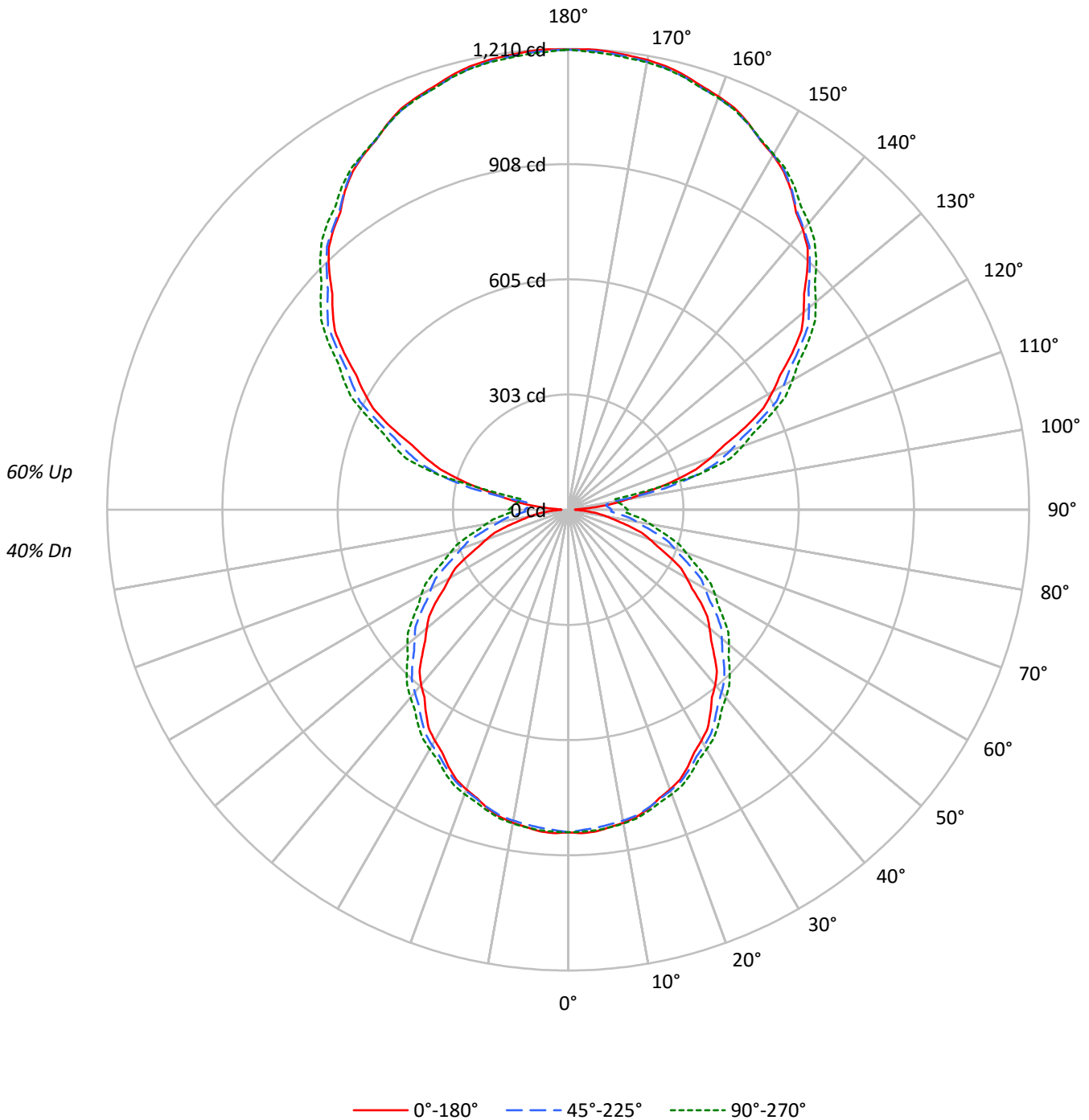
Input Watts (W): 52.6
Input Voltage (V): 120
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Luminous Intensity Polar Plot





TEST NUMBER: P332789-940

CATALOG NUMBER: S124DIW-S795D1050U940-4F0-1E-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°	6838	6838	6838
5°	6859	6683	6702
10°	6817	6573	6568
15°	6756	6446	6411
20°	6664	6307	6259
25°	6560	6151	6092
30°	6448	5995	5919
35°	6321	5835	5768
40°	6219	5684	5610
45°	6067	5543	5475
50°	5939	5383	5333
55°	5808	5231	5164
60°	5601	5036	5013
65°	5376	4829	4824
70°	5101	4592	4605
75°	4723	4331	4407
80°	4295	4081	4213
85°	3763	3857	4101



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	80.2	1.2
10°-20°	229.8	3.5
20°-30°	347.5	5.2
30°-40°	420.4	6.3
40°-50°	444.5	6.7
50°-60°	418.3	6.3
60°-70°	347.1	5.2
70°-80°	243.8	3.7
80°-90°	141.3	2.1
90°-100°	123.2	1.9
100°-110°	324.0	4.9
110°-120°	544.6	8.2
120°-130°	662.6	10.0
130°-140°	694.3	10.5
140°-150°	642.0	9.7
150°-160°	516.1	7.8
160°-170°	332.9	5.0
170°-180°	114.7	1.7
0°-30°	657.5	9.9
0°-40°	1077.9	16.3
0°-60°	1940.7	29.3
0°-90°	2672.9	40.3
90°-120°	991.7	15.0
90°-150°	2990.7	45.1
90°-180°	3954.0	59.7
0°-180°	6627.3	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	847	847	847	847	847	
5°	848	845	838	846	845	80
15°	813	814	811	819	818	229
25°	744	749	752	762	764	342
35°	651	662	672	684	688	407
45°	542	561	578	594	599	419
55°	425	445	473	492	498	378
65°	294	324	357	379	388	291
75°	163	198	238	264	273	174
85°	50	90	133	160	171	54
90°	18	66	114	145	156	12
95°	62	65	102	132	143	74
105°	280	306	344	373	351	294
115°	513	526	554	576	583	505
125°	718	721	742	762	770	641
135°	887	887	897	913	921	684
145°	1022	1024	1024	1030	1036	638
155°	1119	1120	1118	1121	1118	516
165°	1181	1177	1176	1183	1175	334
175°	1208	1203	1204	1210	1201	115
180°	1208	1208	1208	1208	1208	



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CATALOG NUMBER: S124DIW-S795D1050U940-4F0-1E-UDD-D

CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	847.0	847.0	847.0	847.0	847.0	847.0	847.0	847.0	847.0	847.0	847.0
2.5°	850.1	849.5	849.0	848.6	848.0	847.1	845.7	844.4	843.0	841.7	842.8
5°	847.9	847.3	846.7	846.1	845.4	844.4	842.8	841.4	839.9	838.5	840.2
7.5°	840.7	840.3	840.0	839.6	839.2	838.4	837.2	836.0	834.7	833.6	835.4
10°	834.6	834.5	834.3	834.0	833.8	833.2	832.1	831.1	830.0	828.9	830.9
12.5°	826.3	826.3	826.3	826.2	826.2	825.8	825.1	824.3	823.6	822.9	824.7
15°	812.9	813.1	813.2	813.5	813.7	813.5	812.9	812.3	811.5	810.9	812.9
17.5°	794.4	795.0	795.7	796.4	797.0	797.2	797.1	797.0	796.8	796.7	798.7
20°	781.6	782.2	782.8	783.5	784.1	784.5	784.7	784.9	785.2	785.3	787.5
22.5°	767.1	767.9	768.7	769.5	770.3	771.0	771.3	771.7	772.0	772.5	774.5
25°	743.6	744.8	746.2	747.4	748.7	749.7	750.3	750.9	751.5	752.2	754.5
27.5°	717.5	719.3	721.1	723.0	724.9	726.3	727.3	728.2	729.2	730.1	732.3
30°	700.0	701.7	703.4	705.1	706.8	708.3	709.8	711.2	712.7	714.2	716.5
32.5°	681.0	683.1	685.1	687.1	689.1	690.9	692.6	694.2	695.9	697.5	700.2
35°	650.7	653.2	655.8	658.3	660.8	663.1	665.2	667.4	669.4	671.5	674.5
37.5°	620.1	623.0	626.0	628.8	631.8	634.5	637.1	639.7	642.4	645.0	648.0
40°	600.4	603.2	605.8	608.6	611.4	614.2	617.2	620.1	623.0	626.0	629.2
42.5°	577.7	580.7	583.8	586.8	590.0	593.2	596.6	600.1	603.6	607.0	610.6
45°	542.5	546.5	550.5	554.6	558.6	562.6	566.6	570.6	574.5	578.5	582.2
47.5°	509.0	513.1	517.2	521.4	525.5	529.9	534.5	539.1	543.8	548.4	552.1
50°	484.6	489.3	493.9	498.6	503.2	507.8	512.5	517.1	521.7	526.4	530.7
52.5°	460.4	465.0	469.7	474.3	478.9	483.9	489.2	494.5	499.9	505.2	509.3
55°	424.9	429.4	433.8	438.2	442.6	448.0	454.3	460.7	467.0	473.3	477.5
57.5°	385.3	390.7	396.3	401.7	407.2	413.0	419.4	425.6	431.9	438.2	443.2
60°	359.4	365.0	370.4	375.9	381.4	387.6	394.6	401.5	408.5	415.4	420.3
62.5°	334.4	340.5	346.4	352.4	358.4	364.9	371.8	378.8	385.8	392.7	397.5
65°	294.0	300.8	307.6	314.2	321.0	328.0	335.1	342.3	349.5	356.6	361.9
67.5°	255.1	262.3	269.5	276.6	283.8	291.2	298.9	306.6	314.2	321.9	327.3
70°	228.5	235.8	242.9	250.1	257.3	264.8	272.9	280.9	288.8	296.9	302.6
72.5°	202.8	210.1	217.5	224.8	232.1	240.0	248.6	257.1	265.6	274.1	279.6
75°	163.2	170.9	178.7	186.5	194.3	202.7	211.5	220.3	229.3	238.1	244.0
77.5°	126.2	134.4	142.7	151.0	159.2	168.0	177.3	186.5	195.8	205.1	211.1
80°	103.3	111.8	120.2	128.7	137.1	146.0	155.2	164.5	173.8	183.1	189.4
82.5°	80.6	89.3	98.2	106.9	115.7	124.8	134.0	143.3	152.6	161.8	168.3
85°	50.3	59.1	67.9	76.9	85.7	94.9	104.3	113.8	123.3	132.8	139.1
87.5°	28.6	37.6	46.7	55.7	64.7	74.1	83.6	93.2	102.7	112.3	118.7
90°	17.9	28.5	39.1	49.8	60.5	71.1	81.8	92.5	103.1	113.8	121.1
92.5°	25.8	33.5	41.2	49.0	56.6	65.8	76.5	87.1	97.8	108.5	115.7
95°	62.1	62.2	62.2	62.4	62.5	67.1	75.9	84.7	93.5	102.4	109.3
97.5°	116.7	127.0	137.2	147.4	157.7	155.9	142.0	128.2	114.3	100.5	106.1
100°	158.6	167.7	176.8	185.9	195.0	189.8	170.3	150.8	131.3	111.8	114.1
102.5°	206.3	213.7	221.2	228.6	236.1	242.1	246.5	250.9	255.4	259.8	228.5
105°	280.4	285.9	291.3	296.8	302.2	309.2	318.1	326.9	335.6	344.5	351.5
107.5°	351.0	355.0	359.1	363.1	367.2	373.5	382.3	391.1	399.8	408.6	414.6
110°	397.9	401.4	405.0	408.6	412.1	418.1	426.8	435.3	443.9	452.5	457.7



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CANDELA DISTRIBUTION (continued):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	443.4	447.1	450.8	454.5	458.2	463.8	471.4	479.0	486.6	494.2	498.8
115°	513.4	515.9	518.4	520.9	523.4	528.0	534.5	541.0	547.6	554.1	559.2
117.5°	577.4	579.3	581.3	583.2	585.1	589.5	596.2	603.0	609.7	616.4	620.7
120°	620.0	621.4	622.9	624.3	625.7	629.5	635.3	641.2	647.1	653.1	657.6
122.5°	660.5	661.1	661.6	662.3	662.9	666.2	672.3	678.3	684.4	690.5	694.9
125°	717.6	718.1	718.7	719.3	719.9	722.6	727.5	732.4	737.3	742.1	746.7
127.5°	772.3	772.2	772.2	772.2	772.2	774.7	779.7	784.6	789.6	794.6	798.3
130°	806.9	806.9	806.9	806.9	806.9	808.9	812.9	816.8	820.8	824.7	828.8
132.5°	839.5	839.6	839.7	839.9	840.1	841.9	845.3	848.8	852.2	855.7	859.5
135°	887.3	887.1	886.9	886.7	886.4	887.5	889.8	892.1	894.4	896.6	900.4
137.5°	930.5	930.3	930.2	930.1	930.0	930.7	932.3	933.9	935.5	937.1	940.6
140°	958.7	958.9	959.0	959.2	959.4	959.8	960.5	961.1	961.6	962.2	965.6
142.5°	983.2	983.9	984.5	985.3	986.0	986.3	986.4	986.6	986.7	986.8	989.6
145°	1021.9	1022.3	1022.6	1023.1	1023.4	1023.6	1023.6	1023.6	1023.6	1023.6	1025.1
147.5°	1052.8	1053.6	1054.6	1055.5	1056.4	1056.8	1056.6	1056.4	1056.1	1056.0	1056.3
150°	1075.1	1075.8	1076.4	1076.9	1077.5	1077.7	1077.5	1077.4	1077.1	1076.9	1076.9
152.5°	1093.2	1093.8	1094.4	1095.0	1095.6	1095.7	1095.4	1095.0	1094.7	1094.3	1094.6
155°	1119.4	1119.6	1119.8	1120.0	1120.2	1120.0	1119.4	1118.8	1118.2	1117.6	1118.4
157.5°	1141.7	1141.5	1141.4	1141.2	1141.1	1140.8	1140.1	1139.3	1138.7	1138.0	1139.1
160°	1154.6	1154.1	1153.4	1152.8	1152.2	1151.8	1151.6	1151.4	1151.2	1151.0	1152.2
162.5°	1166.2	1165.5	1164.7	1163.9	1163.1	1162.6	1162.4	1162.3	1162.1	1161.8	1163.1
165°	1180.8	1179.8	1178.8	1177.8	1176.8	1176.3	1176.3	1176.3	1176.3	1176.3	1177.9
167.5°	1192.4	1191.3	1190.3	1189.3	1188.2	1187.7	1187.5	1187.4	1187.3	1187.1	1188.9
170°	1198.9	1197.7	1196.5	1195.2	1194.1	1193.6	1193.7	1194.0	1194.2	1194.4	1196.0
172.5°	1203.2	1202.0	1200.8	1199.6	1198.4	1197.9	1198.1	1198.3	1198.5	1198.7	1200.3
175°	1207.9	1206.8	1205.5	1204.3	1203.1	1202.7	1202.8	1203.0	1203.2	1203.5	1205.2
177.5°	1210.1	1209.0	1207.8	1206.8	1205.6	1205.2	1205.5	1205.9	1206.1	1206.5	1207.7
180°	1207.9	1207.9	1207.9	1207.9	1207.9	1207.9	1207.9	1207.9	1207.9	1207.9	1207.9



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CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
0°	847.0	847.0	847.0	847.0	847.0	847.0	847.0	847.0
2.5°	844.0	845.3	846.4	846.9	846.8	846.6	846.4	846.2
5°	841.9	843.6	845.2	846.0	845.7	845.5	845.3	845.1
7.5°	837.3	839.2	841.2	842.0	841.8	841.5	841.3	841.2
10°	832.8	834.6	836.6	837.4	837.2	837.0	836.8	836.6
12.5°	826.3	828.1	829.8	830.6	830.6	830.5	830.5	830.5
15°	814.8	816.6	818.5	819.4	819.2	818.9	818.8	818.5
17.5°	800.6	802.5	804.5	805.4	805.2	805.0	804.9	804.7
20°	789.5	791.7	793.8	794.9	794.9	794.9	794.9	794.9
22.5°	776.7	778.7	780.9	782.1	782.5	782.7	783.1	783.5
25°	756.8	759.1	761.4	762.7	762.9	763.1	763.3	763.6
27.5°	734.4	736.6	738.8	739.9	740.2	740.5	740.7	740.9
30°	718.8	721.1	723.4	724.9	725.3	725.7	726.1	726.6
32.5°	702.8	705.5	708.1	709.7	710.1	710.5	711.0	711.4
35°	677.4	680.4	683.3	685.1	685.7	686.3	687.1	687.7
37.5°	650.9	654.0	656.9	658.8	659.4	660.1	660.8	661.5
40°	632.3	635.5	638.6	640.6	641.5	642.3	643.2	644.0
42.5°	614.0	617.5	621.0	623.1	623.8	624.5	625.2	625.8
45°	585.8	589.3	592.9	595.2	596.3	597.4	598.4	599.4
47.5°	555.8	559.5	563.3	565.7	567.0	568.3	569.5	570.8
50°	534.8	539.0	543.2	546.0	547.2	548.6	549.8	551.1
52.5°	513.6	517.8	522.0	524.8	526.0	527.3	528.5	529.9
55°	481.7	486.0	490.2	492.9	494.2	495.4	496.7	497.9
57.5°	448.3	453.3	458.3	461.4	462.5	463.7	464.9	466.1
60°	425.2	430.0	434.8	438.1	439.8	441.5	443.2	444.9
62.5°	402.3	407.2	412.1	415.4	417.1	418.7	420.4	422.0
65°	367.2	372.5	377.7	381.2	382.9	384.6	386.2	387.9
67.5°	332.6	338.0	343.3	346.8	348.5	350.1	351.8	353.4
70°	308.3	314.0	319.7	323.2	324.7	326.2	327.6	329.1
72.5°	285.2	290.7	296.2	299.8	301.4	303.1	304.7	306.4
75°	249.9	255.7	261.7	265.6	267.5	269.4	271.3	273.1
77.5°	217.0	223.0	229.0	233.0	235.1	237.0	239.1	241.1
80°	195.7	202.1	208.4	212.3	214.0	215.7	217.4	219.1
82.5°	174.8	181.3	187.8	192.0	193.8	195.6	197.5	199.4
85°	145.4	151.8	158.1	162.3	164.4	166.5	168.6	170.8
87.5°	125.0	131.3	137.7	141.9	143.7	145.7	147.7	149.6
90°	128.4	135.7	143.0	147.8	149.8	151.9	154.0	156.1
92.5°	122.8	129.9	137.1	141.5	143.3	145.1	146.9	148.6
95°	116.2	123.1	130.0	134.5	136.6	138.7	140.8	142.9
97.5°	111.7	117.4	123.1	126.9	128.9	130.9	133.0	134.9
100°	116.4	118.7	120.9	123.0	124.6	126.3	128.0	129.7
102.5°	197.2	165.9	134.6	119.8	121.5	123.2	124.8	126.5
105°	358.6	365.7	372.8	373.5	368.0	362.5	357.0	351.4
107.5°	420.7	426.8	432.8	437.0	439.3	441.6	443.8	446.1
110°	463.0	468.2	473.5	477.2	479.6	481.8	484.1	486.4



TEST NUMBER: P332789-940

CATALOG NUMBER: S124DIW-S795D1050U940-4F0-1E-UDD-D

CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
112.5°	503.5	508.0	512.6	516.1	518.6	521.0	523.5	525.9
115°	564.2	569.3	574.3	577.6	579.0	580.5	581.9	583.4
117.5°	625.0	629.3	633.6	636.6	638.2	639.8	641.4	643.0
120°	662.3	666.9	671.5	674.5	675.7	677.1	678.3	679.7
122.5°	699.4	703.8	708.3	711.1	712.2	713.3	714.4	715.5
125°	751.4	755.9	760.5	763.6	765.0	766.5	767.9	769.5
127.5°	801.9	805.6	809.3	811.7	813.1	814.3	815.6	816.8
130°	832.8	836.8	840.7	843.4	844.6	845.9	847.1	848.5
132.5°	863.4	867.2	871.0	873.4	874.6	875.7	876.8	877.9
135°	904.2	907.9	911.8	914.4	916.1	917.7	919.4	921.1
137.5°	944.1	947.6	951.2	953.4	954.3	955.3	956.2	957.2
140°	968.9	972.3	975.6	977.9	979.2	980.4	981.7	982.9
142.5°	992.5	995.3	998.2	1000.1	1000.9	1001.9	1002.8	1003.7
145°	1026.5	1028.1	1029.5	1030.8	1032.1	1033.3	1034.6	1035.8
147.5°	1056.6	1056.9	1057.3	1057.9	1058.7	1059.6	1060.5	1061.4
150°	1076.9	1076.9	1076.9	1077.0	1077.2	1077.5	1077.6	1077.8
152.5°	1094.9	1095.2	1095.6	1095.6	1095.6	1095.4	1095.3	1095.2
155°	1119.2	1120.0	1120.8	1120.9	1120.3	1119.7	1119.1	1118.5
157.5°	1140.1	1141.1	1142.2	1142.2	1141.1	1140.1	1139.1	1138.0
160°	1153.4	1154.6	1155.8	1155.8	1154.6	1153.4	1152.2	1151.0
162.5°	1164.2	1165.5	1166.6	1166.6	1165.2	1163.9	1162.5	1161.1
165°	1179.6	1181.2	1182.8	1182.6	1180.8	1179.0	1177.2	1175.4
167.5°	1190.7	1192.5	1194.2	1194.1	1192.1	1190.1	1188.1	1186.1
170°	1197.6	1199.2	1200.8	1200.6	1198.5	1196.6	1194.5	1192.6
172.5°	1201.9	1203.5	1205.1	1204.9	1202.7	1200.5	1198.4	1196.1
175°	1207.0	1208.8	1210.7	1210.3	1207.9	1205.5	1203.1	1200.7
177.5°	1209.1	1210.3	1211.7	1211.3	1209.3	1207.5	1205.5	1203.6
180°	1207.9	1207.9	1207.9	1207.9	1207.9	1207.9	1207.9	1207.9

(END OF REPORT)