

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: P332568

Luminaire Tested: **S124DIP-S575D1035U835-4F0-1E-UDD-F**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P332568
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: S124DIP-S575D1035U835-4F0-1E-UDD-F
Description: DEFINE 4 DIRECT-INDIRECT PENDANT LED LUMINAIRE
DOWNLIGHT 575 LUMENS PER FOOT, FLUSH SATIN WHITE DIFFUSER
UPLIGHT 1035 LUMENS PER FOOT, NO LENS
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 6624.5 lumens
Efficiency: N/A
Efficacy: 148.9 lumens/watt
Spacing Criteria (0/90/45): 1.2 / 1.17 / 1.3
Luminous Opening: Rectangular (W 0.33' x L: 4' x H: 0')
CIE Type: Semi-Indirect

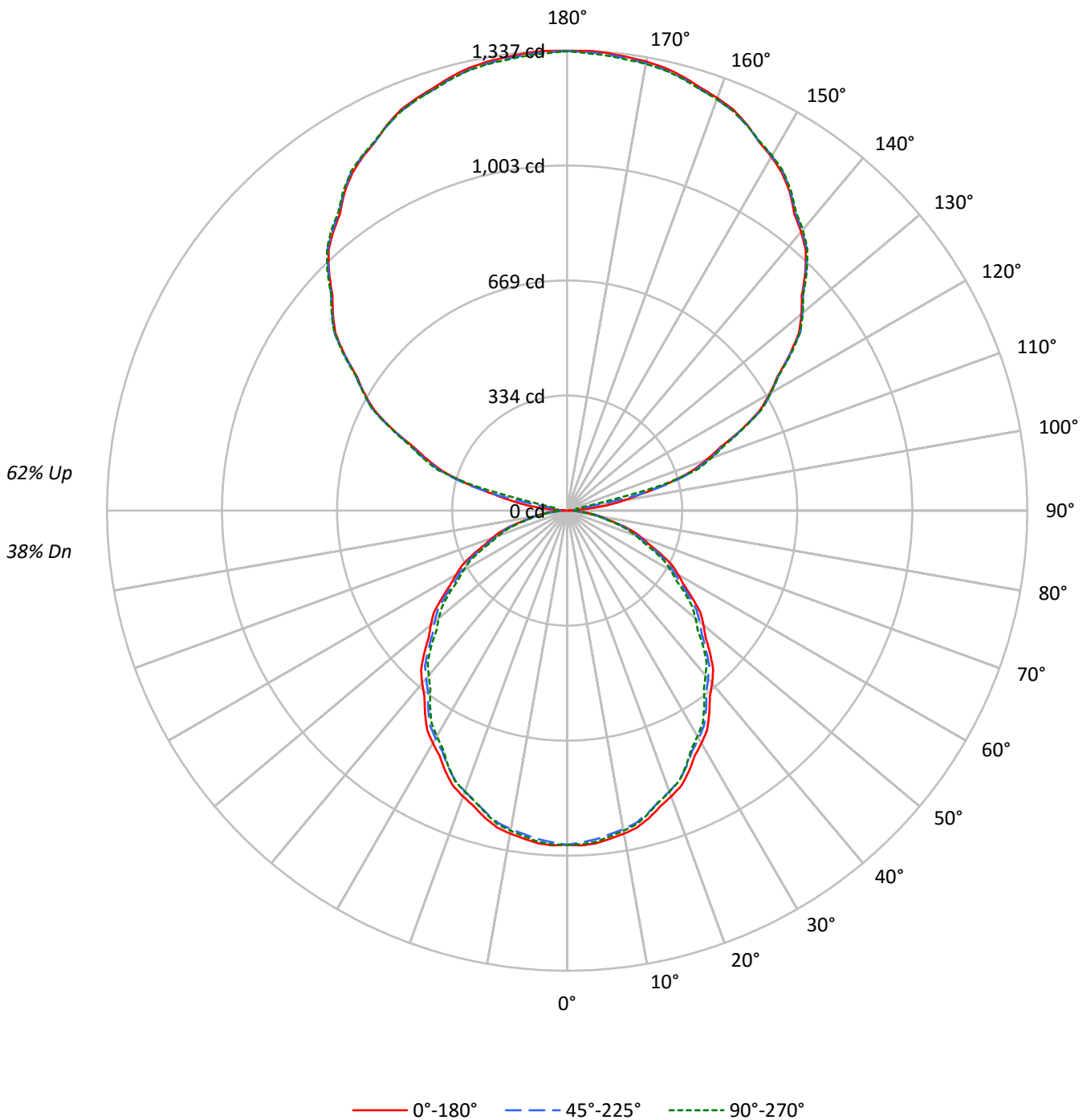
Input Watts (W): 44.5
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	104	104	104	104	95	95	95	95	76	76	76	60	60	60	45	45	45	38
1	95	91	87	83	86	82	79	76	67	65	63	53	51	50	40	39	38	32
2	86	79	73	68	78	72	67	63	59	55	52	46	44	42	35	33	32	26
3	79	70	62	57	71	63	57	52	52	47	43	41	38	35	31	29	27	22
4	72	61	54	48	65	56	49	44	46	41	37	36	33	30	27	25	23	19
5	66	55	47	41	60	50	43	38	41	36	32	33	29	26	25	22	20	17
6	61	49	41	35	55	45	38	33	37	32	28	29	26	23	22	20	18	15
7	56	44	36	31	51	40	34	29	33	28	24	27	23	20	20	18	16	13
8	52	40	32	27	47	37	30	25	30	25	22	24	21	18	19	16	14	12
9	48	36	29	24	44	33	27	22	28	23	19	22	19	16	17	15	13	11
10	45	33	26	22	41	31	24	20	26	21	17	21	17	14	16	13	12	10

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	7840	7840	7840
5°	7864	7769	7826
10°	7814	7706	7744
15°	7720	7596	7616
20°	7594	7460	7467
25°	7451	7306	7285
30°	7276	7124	7058
35°	7094	6933	6841
40°	6905	6716	6593
45°	6707	6503	6379
50°	6489	6314	6118
55°	6253	6068	5871
60°	6018	5792	5616
65°	5752	5530	5307
70°	5455	5179	4978
75°	5000	4757	4635
80°	4449	4268	4161
85°	3890	3751	3677



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	91.5	1.4
10°-20°	257.7	3.9
20°-30°	379.3	5.7
30°-40°	440.9	6.7
40°-50°	440.9	6.7
50°-60°	385.7	5.8
60°-70°	286.4	4.3
70°-80°	162.7	2.5
80°-90°	50.8	0.8
90°-100°	45.7	0.7
100°-110°	291.1	4.4
110°-120°	556.8	8.4
120°-130°	706.8	10.7
130°-140°	756.2	11.4
140°-150°	707.2	10.7
150°-160°	570.3	8.6
160°-170°	367.8	5.6
170°-180°	126.8	1.9
0°-30°	728.4	11.0
0°-40°	1169.3	17.7
0°-60°	1996.0	30.1
0°-90°	2495.9	37.7
90°-120°	893.5	13.5
90°-150°	3063.7	46.2
90°-180°	4129.0	62.3
0°-180°	6624.5	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	971	971	971	971	971	
5°	970	967	959	967	966	92
15°	924	920	909	913	911	260
25°	836	831	820	821	818	385
35°	720	714	704	698	694	450
45°	588	582	570	561	559	453
55°	444	442	431	422	417	398
65°	301	297	290	282	278	298
75°	160	156	152	150	149	170
85°	42	42	40	40	40	46
90°	3	14	22	28	30	5
95°	55	23	22	28	29	71
105°	300	306	312	318	284	314
115°	561	564	563	565	565	552
125°	789	792	791	794	795	704
135°	978	978	981	983	985	753
145°	1128	1131	1131	1132	1134	705
155°	1237	1238	1235	1238	1236	570
165°	1305	1300	1300	1307	1299	369
175°	1335	1329	1330	1338	1327	127
180°	1335	1335	1335	1335	1335	



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CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	971.1	971.1	971.1	971.1	971.1	971.1	971.1	971.1	971.1	971.1	971.1
2.5°	973.6	973.2	972.8	972.4	972.0	971.0	969.5	968.0	966.4	964.9	966.3
5°	970.4	969.7	969.0	968.3	967.6	966.3	964.4	962.5	960.6	958.7	960.6
7.5°	961.3	960.6	960.0	959.3	958.6	957.2	955.1	953.0	950.8	948.7	950.3
10°	953.2	952.6	951.9	951.2	950.5	949.0	946.8	944.5	942.3	940.0	941.4
12.5°	942.7	942.0	941.3	940.6	939.9	938.4	936.0	933.6	931.2	928.8	930.3
15°	923.7	923.0	922.3	921.6	920.9	919.3	916.7	914.1	911.5	908.9	909.9
17.5°	900.8	899.9	899.1	898.2	897.3	895.7	893.2	890.8	888.3	885.9	886.5
20°	884.0	883.1	882.3	881.4	880.5	878.8	876.2	873.6	871.0	868.4	868.9
22.5°	865.9	864.8	863.7	862.5	861.4	859.5	856.9	854.3	851.7	849.1	850.1
25°	836.5	835.3	834.1	832.9	831.7	829.9	827.4	825.0	822.6	820.2	820.4
27.5°	802.9	801.7	800.4	799.2	797.9	796.2	793.9	791.7	789.4	787.2	786.8
30°	780.5	779.1	777.7	776.3	775.0	773.1	770.9	768.6	766.4	764.2	763.5
32.5°	756.8	755.6	754.3	753.1	751.9	750.0	747.7	745.3	742.9	740.5	739.7
35°	719.8	718.6	717.4	716.2	715.0	713.1	710.7	708.3	705.9	703.5	702.2
37.5°	680.7	679.6	678.5	677.4	676.3	674.5	671.9	669.3	666.7	664.1	662.8
40°	655.2	653.8	652.4	651.1	649.7	647.7	645.1	642.5	639.9	637.3	635.6
42.5°	627.8	627.0	626.2	625.3	624.5	622.6	619.8	616.9	614.0	611.2	609.2
45°	587.5	586.3	585.1	583.9	582.7	580.7	577.9	575.1	572.4	569.6	567.7
47.5°	545.3	544.5	543.7	542.8	542.0	540.3	537.8	535.2	532.6	530.1	527.9
50°	516.7	516.0	515.3	514.6	513.9	512.4	510.0	507.5	505.1	502.7	500.3
52.5°	488.7	487.9	487.0	486.2	485.4	483.7	481.1	478.6	476.0	473.4	471.3
55°	444.3	443.8	443.3	442.8	442.3	440.8	438.4	435.9	433.5	431.1	429.0
57.5°	402.0	401.4	400.8	400.2	399.6	398.2	395.8	393.4	391.0	388.6	386.6
60°	372.7	371.9	371.0	370.1	369.3	367.7	365.5	363.2	361.0	358.7	357.2
62.5°	344.1	343.4	342.6	341.9	341.2	339.6	337.3	334.9	332.5	330.1	328.7
65°	301.1	300.3	299.4	298.6	297.7	296.4	294.7	292.9	291.2	289.5	287.7
67.5°	257.9	257.1	256.3	255.5	254.7	253.5	251.8	250.2	248.5	246.8	245.2
70°	231.1	229.9	228.7	227.5	226.3	225.0	223.6	222.2	220.8	219.4	218.1
72.5°	202.5	201.3	200.1	198.8	197.6	196.5	195.4	194.3	193.2	192.0	190.9
75°	160.3	159.4	158.6	157.7	156.8	156.0	155.1	154.2	153.4	152.5	151.8
77.5°	120.0	119.6	119.2	118.9	118.5	117.9	117.1	116.4	115.6	114.9	114.6
80°	95.7	95.2	94.7	94.2	93.6	93.2	92.9	92.5	92.2	91.8	91.5
82.5°	72.1	71.8	71.6	71.3	71.1	70.9	70.9	70.8	70.7	70.7	70.4
85°	42.0	42.0	42.0	42.0	42.0	41.8	41.5	41.2	40.8	40.5	40.5
87.5°	16.8	17.1	17.5	17.8	18.2	18.5	18.7	18.9	19.1	19.3	19.6
90°	3.0	5.4	7.9	10.3	12.8	14.9	16.6	18.4	20.2	22.0	23.3
92.5°	12.6	12.7	12.8	13.0	13.1	14.1	15.8	17.6	19.4	21.2	22.5
95°	54.9	47.4	39.8	32.3	24.7	21.1	21.3	21.5	21.7	22.0	23.3
97.5°	116.6	121.3	126.0	130.7	135.4	125.4	100.6	75.9	51.1	26.4	26.5
100°	163.7	167.7	171.7	175.7	179.7	166.4	135.8	105.2	74.5	43.9	40.2
102.5°	216.4	219.4	222.3	225.2	228.1	227.6	223.6	219.6	215.6	211.6	170.9
105°	300.5	301.8	303.1	304.5	305.8	307.0	308.1	309.2	310.4	311.5	313.5
107.5°	378.5	379.2	379.9	380.5	381.2	382.3	383.8	385.3	386.8	388.3	389.3
110°	431.3	431.9	432.6	433.2	433.9	434.9	436.2	437.6	438.9	440.2	440.7



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CANDELA DISTRIBUTION (continued):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	482.4	483.6	484.8	486.0	487.2	488.1	488.7	489.3	489.9	490.5	490.5
115°	561.0	561.7	562.4	563.0	563.7	563.9	563.7	563.5	563.2	563.0	563.5
117.5°	631.9	632.8	633.7	634.6	635.5	636.1	636.6	637.1	637.6	638.1	638.0
120°	679.8	680.7	681.6	682.5	683.4	683.7	683.5	683.3	683.0	682.8	683.3
122.5°	724.5	725.1	725.6	726.1	726.7	727.1	727.4	727.7	728.0	728.3	728.6
125°	788.6	789.5	790.4	791.3	792.2	792.4	792.0	791.5	791.1	790.6	791.3
127.5°	849.3	849.5	849.8	850.0	850.2	850.8	851.9	852.9	853.9	854.9	854.8
130°	888.5	888.7	888.9	889.1	889.3	889.8	890.5	891.1	891.8	892.5	892.7
132.5°	924.4	924.8	925.2	925.6	926.0	926.6	927.5	928.3	929.1	930.0	930.2
135°	978.3	978.1	977.9	977.6	977.4	977.7	978.6	979.5	980.4	981.3	981.7
137.5°	1026.0	1026.1	1026.2	1026.3	1026.4	1026.9	1027.9	1028.9	1029.8	1030.8	1031.3
140°	1057.2	1057.6	1058.1	1058.5	1058.9	1059.4	1059.8	1060.3	1060.7	1061.2	1061.8
142.5°	1085.1	1085.9	1086.7	1087.5	1088.3	1088.8	1089.1	1089.4	1089.6	1089.9	1090.4
145°	1128.0	1128.7	1129.4	1130.0	1130.7	1131.0	1131.0	1131.0	1131.0	1131.0	1131.3
147.5°	1162.2	1163.4	1164.7	1165.9	1167.2	1167.7	1167.4	1167.2	1167.0	1166.8	1167.0
150°	1186.9	1187.8	1188.7	1189.6	1190.5	1190.8	1190.6	1190.4	1190.2	1189.9	1189.9
152.5°	1207.7	1208.4	1209.1	1209.8	1210.5	1210.7	1210.3	1209.9	1209.5	1209.1	1209.5
155°	1236.9	1237.1	1237.3	1237.5	1237.7	1237.5	1236.9	1236.2	1235.5	1234.9	1235.7
157.5°	1261.4	1261.3	1261.1	1261.0	1260.9	1260.4	1259.7	1258.9	1258.2	1257.4	1258.6
160°	1275.8	1275.1	1274.5	1273.8	1273.1	1272.7	1272.5	1272.2	1272.0	1271.8	1273.1
162.5°	1288.6	1287.7	1286.9	1286.0	1285.2	1284.7	1284.4	1284.2	1284.0	1283.8	1285.1
165°	1304.7	1303.6	1302.5	1301.4	1300.3	1299.7	1299.7	1299.7	1299.7	1299.7	1301.5
167.5°	1317.5	1316.4	1315.2	1314.1	1312.9	1312.3	1312.1	1312.0	1311.9	1311.7	1313.7
170°	1324.7	1323.4	1322.0	1320.7	1319.4	1318.8	1319.0	1319.3	1319.5	1319.7	1321.5
172.5°	1329.5	1328.2	1326.8	1325.5	1324.2	1323.6	1323.8	1324.1	1324.3	1324.5	1326.3
175°	1334.7	1333.4	1332.0	1330.7	1329.4	1328.8	1329.0	1329.3	1329.5	1329.7	1331.7
177.5°	1337.1	1335.8	1334.6	1333.4	1332.1	1331.7	1332.0	1332.4	1332.7	1333.1	1334.5
180°	1334.7	1334.7	1334.7	1334.7	1334.7	1334.7	1334.7	1334.7	1334.7	1334.7	1334.7



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CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
0°	971.1	971.1	971.1	971.1	971.1	971.1	971.1	971.1
2.5°	967.7	969.1	970.5	971.1	970.9	970.8	970.7	970.5
5°	962.5	964.4	966.3	967.1	966.7	966.4	966.0	965.7
7.5°	951.8	953.3	954.8	955.5	955.3	955.1	954.9	954.6
10°	942.8	944.2	945.6	946.1	945.7	945.4	945.0	944.7
12.5°	931.9	933.4	934.9	935.4	934.9	934.4	934.0	933.5
15°	911.0	912.0	913.0	913.3	912.8	912.3	911.7	911.2
17.5°	887.2	887.8	888.5	888.6	888.3	887.9	887.6	887.3
20°	869.5	870.0	870.5	870.6	870.2	869.9	869.6	869.2
22.5°	851.0	851.9	852.9	853.0	852.4	851.8	851.2	850.5
25°	820.5	820.7	820.9	820.6	819.9	819.2	818.5	817.8
27.5°	786.4	785.9	785.5	784.9	784.0	783.2	782.3	781.4
30°	762.8	762.1	761.4	760.6	759.7	758.9	758.0	757.1
32.5°	738.8	738.0	737.2	736.3	735.5	734.6	733.7	732.9
35°	701.0	699.8	698.6	697.6	696.7	695.8	695.0	694.1
37.5°	661.5	660.1	658.8	657.6	656.5	655.3	654.2	653.0
40°	633.9	632.1	630.4	629.1	628.2	627.4	626.5	625.6
42.5°	607.2	605.1	603.1	601.8	601.3	600.7	600.1	599.5
45°	565.8	563.9	562.0	560.8	560.3	559.8	559.2	558.7
47.5°	525.8	523.6	521.5	519.8	518.5	517.1	515.8	514.5
50°	497.8	495.4	493.0	491.3	490.2	489.2	488.2	487.1
52.5°	469.1	467.0	464.9	463.1	461.8	460.5	459.2	457.9
55°	427.0	424.9	422.8	421.2	420.2	419.2	418.1	417.1
57.5°	384.7	382.7	380.7	379.2	378.2	377.2	376.2	375.2
60°	355.6	354.1	352.5	351.3	350.4	349.6	348.7	347.8
62.5°	327.3	325.8	324.4	323.3	322.4	321.6	320.7	319.8
65°	286.0	284.3	282.6	281.3	280.4	279.5	278.7	277.8
67.5°	243.5	241.9	240.2	239.2	239.0	238.8	238.5	238.3
70°	216.7	215.3	213.9	213.0	212.4	211.9	211.4	210.9
72.5°	189.8	188.7	187.6	186.8	186.3	185.8	185.3	184.7
75°	151.1	150.4	149.8	149.3	149.1	149.0	148.8	148.6
77.5°	114.4	114.2	114.0	113.7	113.2	112.8	112.3	111.9
80°	91.1	90.8	90.4	90.2	90.0	89.8	89.7	89.5
82.5°	70.2	70.0	69.8	69.6	69.5	69.3	69.1	68.9
85°	40.5	40.5	40.5	40.4	40.2	40.0	39.9	39.7
87.5°	19.9	20.1	20.4	20.6	20.7	20.8	20.8	20.9
90°	24.6	26.0	27.3	28.2	28.6	29.1	29.5	29.9
92.5°	23.8	25.2	26.5	27.2	27.3	27.4	27.5	27.6
95°	24.6	26.0	27.3	28.1	28.3	28.5	28.7	28.9
97.5°	26.6	26.8	26.9	27.1	27.3	27.5	27.7	28.0
100°	36.4	32.6	28.8	27.1	27.3	27.5	27.7	28.0
102.5°	130.3	89.6	48.9	28.6	28.6	28.7	28.7	28.8
105°	315.5	317.4	319.4	316.5	308.5	300.5	292.5	284.5
107.5°	390.3	391.3	392.2	393.1	394.0	394.8	395.7	396.5
110°	441.1	441.6	442.0	442.6	443.2	443.9	444.6	445.2



TEST NUMBER: P332568

CATALOG NUMBER: S124DIP-S575D1035U835-4F0-1E-UDD-F

CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
112.5°	490.4	490.3	490.2	490.6	491.4	492.3	493.1	493.9
115°	563.9	564.4	564.8	565.0	565.0	565.0	565.0	565.0
117.5°	637.9	637.8	637.7	637.7	637.6	637.5	637.4	637.3
120°	683.7	684.1	684.6	684.6	684.1	683.7	683.3	682.8
122.5°	728.9	729.1	729.4	729.3	728.9	728.4	728.0	727.5
125°	792.0	792.6	793.3	793.7	794.0	794.2	794.4	794.6
127.5°	854.7	854.5	854.4	854.2	854.1	853.9	853.7	853.5
130°	892.9	893.1	893.3	893.5	893.5	893.5	893.5	893.5
132.5°	930.4	930.7	930.9	930.9	930.7	930.5	930.4	930.2
135°	982.2	982.6	983.1	983.5	984.0	984.4	984.8	985.3
137.5°	1031.8	1032.3	1032.8	1032.9	1032.8	1032.7	1032.5	1032.4
140°	1062.5	1063.2	1063.8	1064.3	1064.5	1064.7	1064.9	1065.2
142.5°	1090.9	1091.4	1091.9	1092.1	1092.2	1092.2	1092.3	1092.3
145°	1131.5	1131.7	1131.9	1132.3	1132.7	1133.1	1133.6	1134.0
147.5°	1167.1	1167.3	1167.5	1167.7	1167.9	1168.1	1168.4	1168.6
150°	1189.9	1189.9	1189.9	1190.0	1190.3	1190.5	1190.7	1190.9
152.5°	1209.8	1210.2	1210.5	1210.6	1210.5	1210.4	1210.2	1210.1
155°	1236.6	1237.5	1238.4	1238.5	1237.9	1237.2	1236.5	1235.9
157.5°	1259.7	1260.9	1262.0	1262.0	1260.9	1259.7	1258.6	1257.4
160°	1274.5	1275.8	1277.1	1277.1	1275.8	1274.5	1273.1	1271.8
162.5°	1286.4	1287.8	1289.1	1289.0	1287.5	1286.0	1284.5	1283.0
165°	1303.3	1305.1	1306.8	1306.7	1304.7	1302.7	1300.7	1298.7
167.5°	1315.6	1317.6	1319.5	1319.4	1317.2	1315.0	1312.7	1310.5
170°	1323.3	1325.0	1326.8	1326.6	1324.4	1322.2	1319.9	1317.7
172.5°	1328.1	1329.8	1331.6	1331.3	1328.9	1326.5	1324.1	1321.7
175°	1333.7	1335.7	1337.7	1337.3	1334.7	1332.0	1329.4	1326.7
177.5°	1335.9	1337.3	1338.8	1338.4	1336.3	1334.2	1332.0	1329.9
180°	1334.7	1334.7	1334.7	1334.7	1334.7	1334.7	1334.7	1334.7

(END OF REPORT)