

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: P332568-840

Luminaire Tested: **S124DIP-S575D1035U840-4F0-1E-UDD-F**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P332568-840
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-S575D1035U840-4F0-1E-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: 6689.9 lumens
Efficiency: N/A
Efficacy: 150.3 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

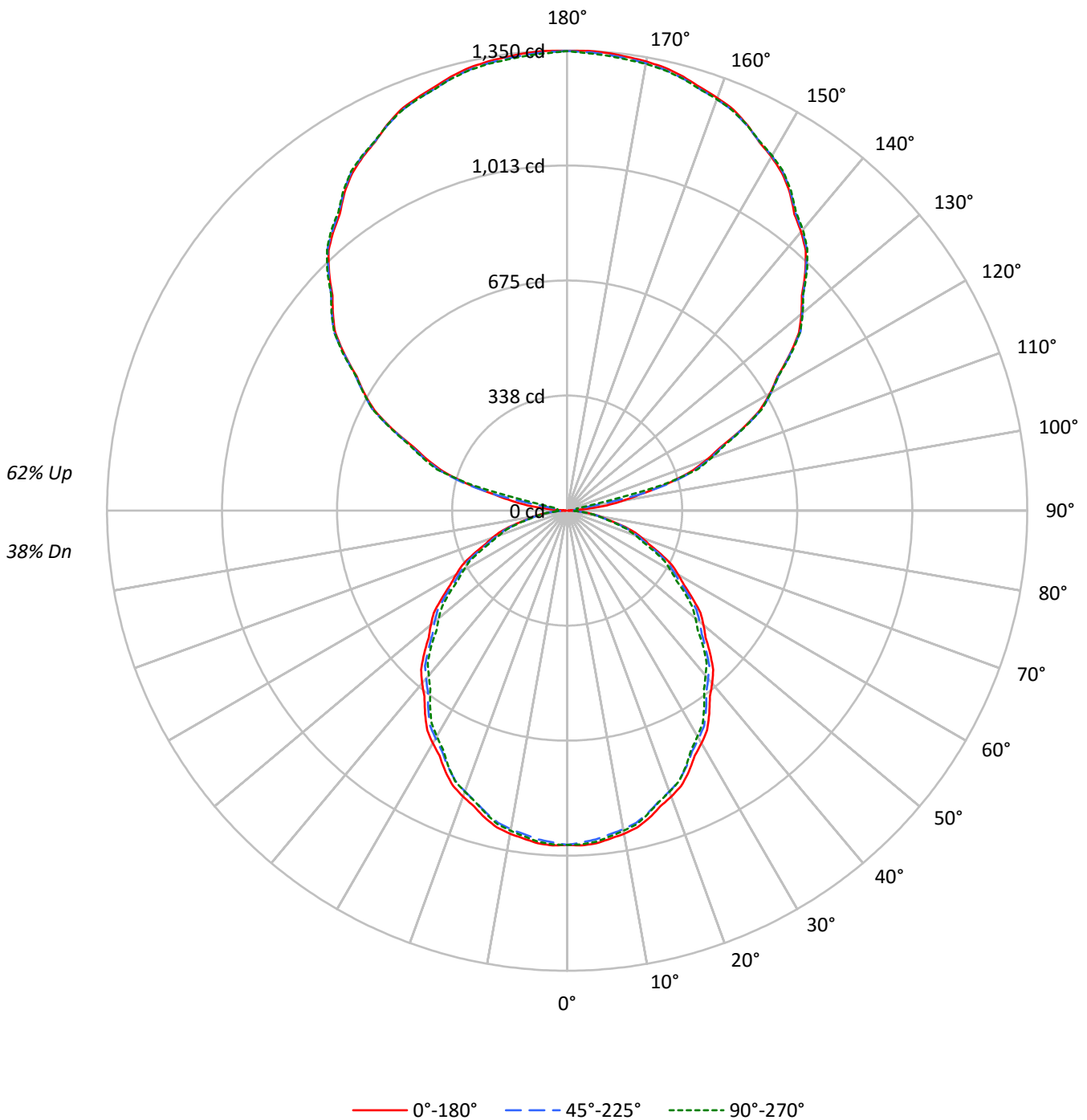
Input Watts (W): 44.5
Input Voltage (V): 120
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Luminous Intensity Polar Plot





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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°	7917	7917	7917
5°	7942	7846	7903
10°	7891	7782	7820
15°	7796	7672	7691
20°	7669	7534	7541
25°	7525	7378	7357
30°	7347	7194	7127
35°	7164	7001	6908
40°	6973	6783	6658
45°	6774	6567	6441
50°	6553	6376	6178
55°	6315	6128	5928
60°	6077	5848	5670
65°	5809	5585	5358
70°	5509	5231	5028
75°	5050	4803	4682
80°	4491	4310	4203
85°	3927	3788	3714



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	92.4	1.4
10°-20°	260.2	3.9
20°-30°	383.0	5.7
30°-40°	445.3	6.7
40°-50°	445.3	6.7
50°-60°	389.5	5.8
60°-70°	289.3	4.3
70°-80°	164.3	2.5
80°-90°	51.3	0.8
90°-100°	46.1	0.7
100°-110°	293.9	4.4
110°-120°	562.3	8.4
120°-130°	713.8	10.7
130°-140°	763.7	11.4
140°-150°	714.1	10.7
150°-160°	575.9	8.6
160°-170°	371.4	5.6
170°-180°	128.0	1.9
0°-30°	735.6	11.0
0°-40°	1180.9	17.7
0°-60°	2015.7	30.1
0°-90°	2520.6	37.7
90°-120°	902.3	13.5
90°-150°	3094.0	46.2
90°-180°	4169.0	62.3
0°-180°	6689.9	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	981	981	981	981	981	
5°	980	976	968	976	975	93
15°	933	929	918	922	920	263
25°	845	839	828	829	826	388
35°	727	721	710	705	701	454
45°	593	587	575	567	564	457
55°	449	446	435	426	421	402
65°	304	300	292	285	280	301
75°	162	158	154	151	150	172
85°	42	42	41	41	40	47
90°	3	14	22	28	30	5
95°	55	23	22	28	29	71
105°	304	309	315	321	287	317
115°	566	569	569	570	571	557
125°	796	800	798	801	802	711
135°	988	987	991	993	995	761
145°	1139	1142	1142	1143	1145	712
155°	1249	1250	1247	1251	1248	576
165°	1318	1313	1312	1320	1312	372
175°	1348	1342	1343	1351	1340	128
180°	1348	1348	1348	1348	1348	



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CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	980.7	980.7	980.7	980.7	980.7	980.7	980.7	980.7	980.7	980.7	980.7
2.5°	983.2	982.8	982.4	982.0	981.6	980.6	979.1	977.5	975.9	974.4	975.8
5°	980.0	979.3	978.6	977.9	977.1	975.8	973.9	972.0	970.1	968.2	970.1
7.5°	970.8	970.1	969.5	968.8	968.1	966.6	964.5	962.4	960.2	958.1	959.7
10°	962.6	962.0	961.3	960.6	959.9	958.4	956.1	953.8	951.6	949.3	950.7
12.5°	952.0	951.3	950.6	949.9	949.2	947.7	945.2	942.8	940.4	938.0	939.5
15°	932.8	932.1	931.4	930.7	930.0	928.4	925.7	923.1	920.5	917.9	918.9
17.5°	909.7	908.8	908.0	907.1	906.2	904.5	902.0	899.6	897.1	894.6	895.2
20°	892.7	891.8	891.0	890.1	889.2	887.5	884.8	882.2	879.6	877.0	877.5
22.5°	874.4	873.3	872.2	871.0	869.9	868.0	865.4	862.7	860.1	857.5	858.5
25°	844.8	843.5	842.3	841.1	839.9	838.1	835.6	833.1	830.7	828.3	828.5
27.5°	810.8	809.6	808.3	807.1	805.8	804.1	801.7	799.5	797.2	795.0	794.6
30°	788.2	786.8	785.4	784.0	782.6	780.7	778.5	776.2	774.0	771.7	771.0
32.5°	764.3	763.1	761.7	760.5	759.3	757.4	755.1	752.7	750.2	747.8	747.0
35°	726.9	725.7	724.5	723.3	722.1	720.1	717.7	715.3	712.9	710.4	709.1
37.5°	687.4	686.3	685.2	684.1	683.0	681.2	678.5	675.9	673.3	670.7	669.3
40°	661.7	660.2	658.8	657.5	656.1	654.1	651.5	648.8	646.2	643.6	641.9
42.5°	634.0	633.2	632.4	631.5	630.7	628.7	625.9	623.0	620.1	617.2	615.2
45°	593.3	592.1	590.9	589.7	588.4	586.4	583.6	580.8	578.0	575.2	573.3
47.5°	550.7	549.9	549.1	548.2	547.3	545.6	543.1	540.5	537.9	535.3	533.1
50°	521.8	521.1	520.4	519.7	519.0	517.5	515.0	512.5	510.1	507.7	505.2
52.5°	493.5	492.7	491.8	491.0	490.2	488.5	485.8	483.3	480.7	478.1	475.9
55°	448.7	448.2	447.7	447.2	446.7	445.1	442.7	440.2	437.8	435.4	433.2
57.5°	406.0	405.4	404.8	404.1	403.5	402.1	399.7	397.3	394.9	392.4	390.4
60°	376.4	375.6	374.7	373.8	372.9	371.3	369.1	366.8	364.6	362.2	360.7
62.5°	347.5	346.8	346.0	345.3	344.6	343.0	340.6	338.2	335.8	333.4	331.9
65°	304.1	303.3	302.4	301.5	300.6	299.3	297.6	295.8	294.1	292.4	290.5
67.5°	260.4	259.6	258.8	258.0	257.2	256.0	254.3	252.7	251.0	249.2	247.6
70°	233.4	232.2	231.0	229.7	228.5	227.2	225.8	224.4	223.0	221.6	220.3
72.5°	204.5	203.3	202.1	200.8	199.5	198.4	197.3	196.2	195.1	193.9	192.8
75°	161.9	161.0	160.2	159.3	158.3	157.5	156.6	155.7	154.9	154.0	153.3
77.5°	121.2	120.8	120.4	120.1	119.7	119.1	118.3	117.5	116.7	116.0	115.7
80°	96.6	96.1	95.6	95.1	94.5	94.1	93.8	93.4	93.1	92.7	92.4
82.5°	72.8	72.5	72.3	72.0	71.8	71.6	71.6	71.5	71.4	71.4	71.1
85°	42.4	42.4	42.4	42.4	42.4	42.2	41.9	41.6	41.2	40.9	40.9
87.5°	17.0	17.3	17.7	18.0	18.4	18.7	18.9	19.1	19.3	19.5	19.8
90°	3.0	5.5	8.0	10.4	12.9	15.0	16.8	18.6	20.4	22.2	23.5
92.5°	12.7	12.8	12.9	13.1	13.2	14.2	16.0	17.8	19.6	21.4	22.7
95°	55.4	47.9	40.2	32.6	24.9	21.3	21.5	21.7	21.9	22.2	23.5
97.5°	117.8	122.5	127.2	132.0	136.7	126.6	101.6	76.6	51.6	26.7	26.8
100°	165.3	169.4	173.4	177.4	181.5	168.0	137.1	106.2	75.2	44.3	40.6
102.5°	218.5	221.6	224.5	227.4	230.4	229.8	225.8	221.8	217.7	213.7	172.6
105°	303.5	304.8	306.1	307.5	308.8	310.0	311.1	312.3	313.5	314.6	316.6
107.5°	382.2	382.9	383.6	384.3	385.0	386.1	387.6	389.1	390.6	392.1	393.1
110°	435.6	436.2	436.9	437.5	438.2	439.2	440.5	441.9	443.2	444.5	445.0



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CANDELA DISTRIBUTION (continued):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	487.2	488.4	489.6	490.8	492.0	492.9	493.5	494.1	494.7	495.3	495.3
115°	566.5	567.2	567.9	568.6	569.3	569.5	569.3	569.1	568.8	568.6	569.1
117.5°	638.1	639.0	640.0	640.9	641.8	642.4	642.9	643.4	643.9	644.4	644.3
120°	686.5	687.4	688.3	689.2	690.1	690.4	690.2	690.0	689.7	689.5	690.0
122.5°	731.6	732.3	732.8	733.3	733.9	734.3	734.6	734.9	735.2	735.5	735.8
125°	796.4	797.3	798.2	799.1	800.0	800.2	799.8	799.3	798.9	798.4	799.1
127.5°	857.7	857.9	858.2	858.4	858.6	859.2	860.3	861.3	862.3	863.3	863.2
130°	897.3	897.5	897.7	897.9	898.1	898.6	899.3	899.9	900.6	901.3	901.5
132.5°	933.5	933.9	934.3	934.7	935.1	935.7	936.6	937.5	938.3	939.2	939.4
135°	988.0	987.7	987.5	987.2	987.0	987.3	988.3	989.2	990.1	991.0	991.4
137.5°	1036.1	1036.2	1036.3	1036.4	1036.5	1037.0	1038.0	1039.1	1040.0	1041.0	1041.5
140°	1067.6	1068.0	1068.5	1068.9	1069.3	1069.9	1070.3	1070.8	1071.2	1071.7	1072.3
142.5°	1095.8	1096.6	1097.4	1098.2	1099.0	1099.5	1099.8	1100.1	1100.3	1100.7	1101.2
145°	1139.1	1139.8	1140.5	1141.1	1141.9	1142.2	1142.2	1142.2	1142.2	1142.2	1142.5
147.5°	1173.7	1174.9	1176.2	1177.4	1178.7	1179.2	1178.9	1178.7	1178.5	1178.3	1178.5
150°	1198.6	1199.5	1200.4	1201.3	1202.2	1202.5	1202.3	1202.1	1201.9	1201.6	1201.6
152.5°	1219.6	1220.3	1221.0	1221.7	1222.4	1222.6	1222.2	1221.8	1221.4	1221.0	1221.4
155°	1249.1	1249.3	1249.5	1249.7	1249.9	1249.7	1249.1	1248.4	1247.7	1247.1	1247.9
157.5°	1273.8	1273.7	1273.5	1273.4	1273.3	1272.8	1272.1	1271.3	1270.6	1269.8	1271.0
160°	1288.4	1287.7	1287.1	1286.4	1285.7	1285.3	1285.1	1284.8	1284.5	1284.3	1285.7
162.5°	1301.3	1300.4	1299.6	1298.7	1297.9	1297.4	1297.1	1296.9	1296.7	1296.5	1297.8
165°	1317.6	1316.5	1315.3	1314.2	1313.1	1312.5	1312.5	1312.5	1312.5	1312.5	1314.3
167.5°	1330.5	1329.4	1328.2	1327.1	1325.9	1325.2	1325.0	1324.9	1324.8	1324.6	1326.7
170°	1337.8	1336.5	1335.0	1333.7	1332.4	1331.8	1332.0	1332.3	1332.5	1332.7	1334.5
172.5°	1342.6	1341.3	1339.9	1338.6	1337.3	1336.7	1336.9	1337.2	1337.4	1337.6	1339.4
175°	1347.9	1346.6	1345.1	1343.8	1342.5	1341.9	1342.1	1342.4	1342.6	1342.8	1344.8
177.5°	1350.3	1349.0	1347.8	1346.6	1345.2	1344.8	1345.1	1345.5	1345.8	1346.3	1347.7
180°	1347.9	1347.9	1347.9	1347.9	1347.9	1347.9	1347.9	1347.9	1347.9	1347.9	1347.9



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CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
0°	980.7	980.7	980.7	980.7	980.7	980.7	980.7	980.7
2.5°	977.2	978.7	980.1	980.7	980.5	980.4	980.3	980.1
5°	972.0	973.9	975.8	976.6	976.2	975.9	975.5	975.2
7.5°	961.2	962.7	964.2	964.9	964.7	964.5	964.3	964.0
10°	952.1	953.5	954.9	955.4	955.0	954.7	954.3	954.0
12.5°	941.1	942.6	944.1	944.6	944.1	943.6	943.2	942.7
15°	920.0	921.0	922.0	922.3	921.8	921.3	920.7	920.2
17.5°	896.0	896.6	897.3	897.4	897.1	896.7	896.4	896.1
20°	878.1	878.6	879.1	879.2	878.8	878.5	878.2	877.8
22.5°	859.4	860.3	861.3	861.4	860.8	860.2	859.6	858.9
25°	828.6	828.8	829.0	828.7	828.0	827.3	826.6	825.9
27.5°	794.2	793.7	793.2	792.6	791.7	790.9	790.0	789.1
30°	770.3	769.6	768.9	768.1	767.2	766.4	765.5	764.6
32.5°	746.1	745.3	744.5	743.6	742.8	741.8	740.9	740.1
35°	707.9	706.7	705.5	704.5	703.6	702.7	701.9	700.9
37.5°	668.0	666.6	665.3	664.1	663.0	661.8	660.7	659.4
40°	640.2	638.3	636.6	635.3	634.4	633.6	632.7	631.8
42.5°	613.2	611.1	609.0	607.7	607.2	606.6	606.0	605.4
45°	571.4	569.5	567.5	566.3	565.8	565.3	564.7	564.2
47.5°	531.0	528.8	526.6	524.9	523.6	522.2	520.9	519.6
50°	502.7	500.3	497.9	496.1	495.0	494.0	493.0	491.9
52.5°	473.7	471.6	469.5	467.7	466.4	465.0	463.7	462.4
55°	431.2	429.1	427.0	425.4	424.3	423.3	422.2	421.2
57.5°	388.5	386.5	384.5	382.9	381.9	380.9	379.9	378.9
60°	359.1	357.6	356.0	354.8	353.9	353.0	352.1	351.2
62.5°	330.5	329.0	327.6	326.5	325.6	324.8	323.9	323.0
65°	288.8	287.1	285.4	284.1	283.2	282.3	281.4	280.5
67.5°	245.9	244.3	242.6	241.6	241.4	241.2	240.9	240.7
70°	218.8	217.4	216.0	215.1	214.5	214.0	213.5	213.0
72.5°	191.7	190.6	189.5	188.6	188.1	187.6	187.1	186.5
75°	152.6	151.9	151.3	150.8	150.6	150.5	150.3	150.1
77.5°	115.5	115.3	115.1	114.8	114.3	113.9	113.4	113.0
80°	92.0	91.7	91.3	91.1	90.9	90.7	90.6	90.4
82.5°	70.9	70.7	70.5	70.3	70.2	70.0	69.8	69.6
85°	40.9	40.9	40.9	40.8	40.6	40.4	40.3	40.1
87.5°	20.1	20.3	20.6	20.8	20.9	21.0	21.0	21.1
90°	24.8	26.3	27.6	28.5	28.9	29.4	29.8	30.2
92.5°	24.0	25.4	26.8	27.5	27.6	27.7	27.8	27.9
95°	24.8	26.3	27.6	28.4	28.6	28.8	29.0	29.2
97.5°	26.9	27.1	27.2	27.4	27.6	27.8	28.0	28.3
100°	36.8	32.9	29.1	27.4	27.6	27.8	28.0	28.3
102.5°	131.6	90.5	49.4	28.9	28.9	29.0	29.0	29.1
105°	318.6	320.5	322.6	319.6	311.5	303.5	295.4	287.3
107.5°	394.2	395.2	396.1	397.0	397.9	398.7	399.6	400.4
110°	445.5	446.0	446.4	447.0	447.6	448.3	449.0	449.6



TEST NUMBER: P332568-840

CATALOG NUMBER: S124DIP-S575D1035U840-4F0-1E-UDD-F

CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
112.5°	495.2	495.1	495.0	495.4	496.2	497.2	498.0	498.8
115°	569.5	570.0	570.4	570.6	570.6	570.6	570.6	570.6
117.5°	644.2	644.1	644.0	644.0	643.9	643.8	643.7	643.6
120°	690.4	690.8	691.4	691.4	690.8	690.4	690.0	689.5
122.5°	736.1	736.3	736.6	736.5	736.1	735.6	735.2	734.7
125°	799.8	800.4	801.1	801.5	801.8	802.0	802.2	802.4
127.5°	863.1	862.9	862.8	862.6	862.5	862.3	862.1	861.9
130°	901.7	901.9	902.1	902.3	902.3	902.3	902.3	902.3
132.5°	939.6	939.9	940.1	940.1	939.9	939.7	939.6	939.4
135°	991.9	992.3	992.8	993.2	993.7	994.1	994.5	995.0
137.5°	1042.0	1042.5	1043.0	1043.1	1043.0	1042.9	1042.7	1042.6
140°	1073.0	1073.7	1074.3	1074.8	1075.0	1075.2	1075.4	1075.7
142.5°	1101.7	1102.2	1102.7	1102.9	1103.0	1103.0	1103.1	1103.1
145°	1142.7	1142.9	1143.1	1143.5	1143.9	1144.3	1144.8	1145.2
147.5°	1178.6	1178.8	1179.0	1179.2	1179.4	1179.6	1179.9	1180.1
150°	1201.6	1201.6	1201.6	1201.7	1202.0	1202.2	1202.4	1202.6
152.5°	1221.7	1222.1	1222.4	1222.5	1222.4	1222.3	1222.1	1222.0
155°	1248.8	1249.7	1250.6	1250.7	1250.1	1249.4	1248.7	1248.1
157.5°	1272.1	1273.3	1274.4	1274.4	1273.3	1272.1	1271.0	1269.8
160°	1287.1	1288.4	1289.7	1289.7	1288.4	1287.1	1285.7	1284.3
162.5°	1299.1	1300.5	1301.8	1301.7	1300.2	1298.7	1297.2	1295.7
165°	1316.2	1318.0	1319.7	1319.6	1317.6	1315.6	1313.5	1311.5
167.5°	1328.6	1330.6	1332.5	1332.4	1330.2	1328.0	1325.6	1323.4
170°	1336.4	1338.1	1339.9	1339.7	1337.5	1335.2	1332.9	1330.7
172.5°	1341.2	1342.9	1344.7	1344.4	1342.0	1339.6	1337.2	1334.7
175°	1346.9	1348.9	1350.9	1350.5	1347.9	1345.1	1342.5	1339.8
177.5°	1349.1	1350.5	1352.0	1351.6	1349.5	1347.4	1345.1	1343.0
180°	1347.9	1347.9	1347.9	1347.9	1347.9	1347.9	1347.9	1347.9

(END OF REPORT)