

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: P333263-830

Luminaire Tested: **S125DIP-S1090D590U830-4F0-1E-UDD-D1**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P333263-830
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1807-864-11,
Test Lab: INNOVATION CENTER
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: NEO-RAY
Catalog Number: S125DIP-S1090D590U830-4F0-1E-UDD-D1
Description: DEFINE 5 DIRECT-INDIRECT PENDANT LED LUMINAIRE
DOWNLIGHT 1090 LUMENS PER FOOT, DROP SATIN WHITE DIFFUSER
UPLIGHT 590 LUMENS PER FOOT, FLUSH SATIN WHITE DIFFUSER
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 5949.3 lumens
Efficiency: N/A
Efficacy: 121.9 lumens/watt
Spacing Criteria (0/90/45): 1.21 / 1.21 / 1.34
Luminous Opening: Rectangular w/ Sides (W: 0.42' x L: 4' x H: 0.08')
CIE Type: Semi-Direct

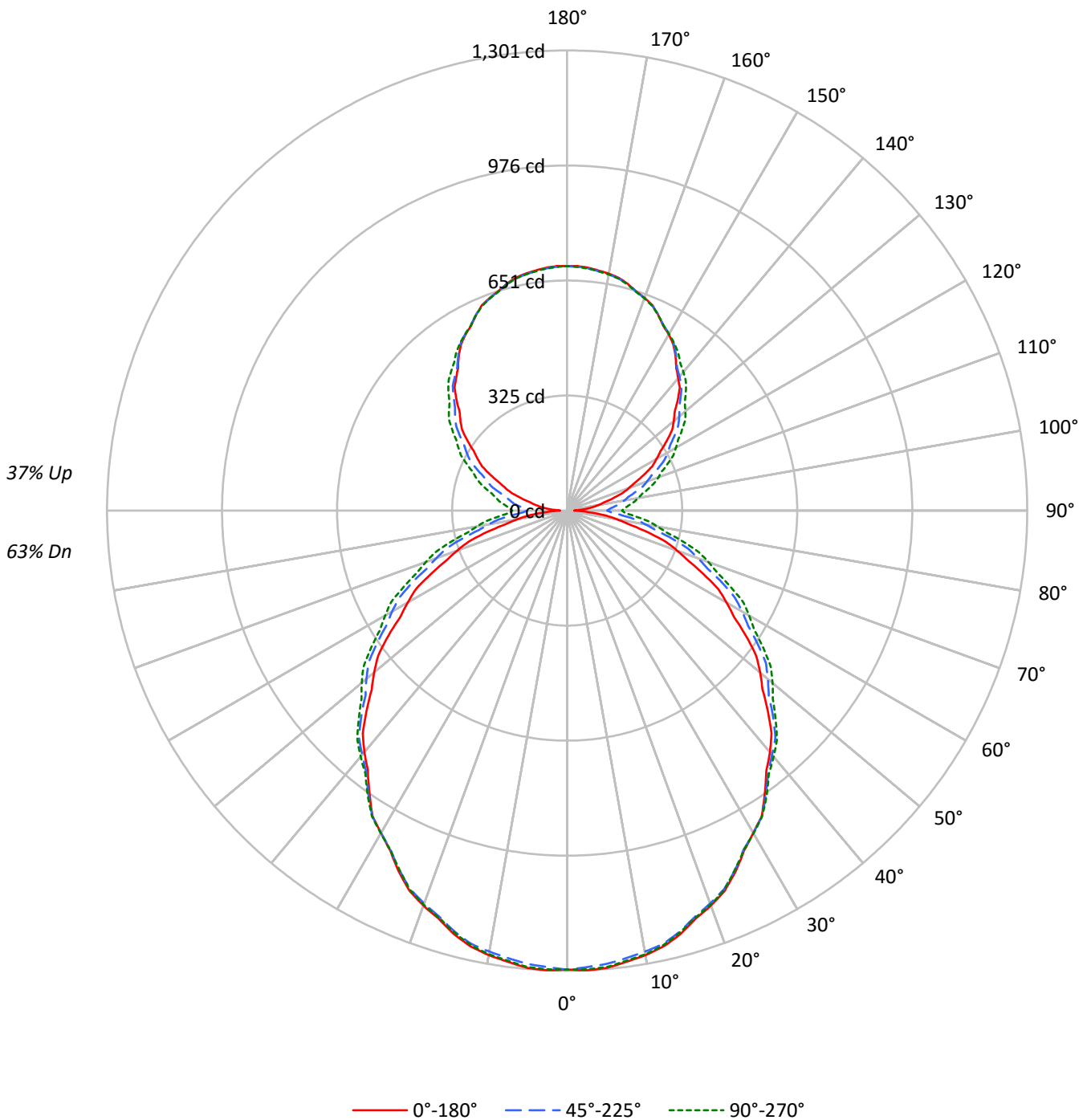
Input Watts (W): 48.8
Input Voltage (V): 120
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	110	110	110	110	104	104	104	104	91	91	91	79	79	79	68	68	68	63
1	100	95	91	87	93	89	85	82	78	75	73	68	66	64	59	57	56	52
2	91	82	76	70	85	77	72	67	68	63	60	59	56	53	51	49	46	42
3	82	72	64	58	77	68	61	55	60	54	50	52	48	44	45	42	39	35
4	75	64	55	49	70	60	52	47	53	47	42	46	42	38	40	37	33	30
5	69	57	48	42	64	54	46	40	47	41	36	42	37	33	36	32	29	26
6	64	51	42	36	59	48	40	35	43	36	32	38	32	28	33	29	25	23
7	59	46	38	32	55	43	36	30	39	32	28	34	29	25	30	26	23	20
8	55	42	34	28	51	40	32	27	35	29	25	31	26	22	27	23	20	18
9	51	38	30	25	48	36	29	24	32	26	22	29	24	20	25	21	18	16
10	48	35	28	23	45	33	26	22	30	24	20	27	22	18	24	19	17	15

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	8382	8382	8382
5°	8399	8227	8253
10°	8339	8080	8068
15°	8240	7905	7833
20°	8107	7687	7597
25°	7947	7455	7307
30°	7754	7199	7044
35°	7574	6964	6802
40°	7390	6715	6559
45°	7184	6503	6343
50°	6986	6274	6153
55°	6748	6056	5928
60°	6488	5808	5700
65°	6217	5549	5444
70°	5908	5194	5179
75°	5420	4854	4854
80°	4780	4442	4501
85°	4183	4164	4388



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	122.7	2.1
10°-20°	348.4	5.9
20°-30°	518.1	8.7
30°-40°	613.7	10.3
40°-50°	634.5	10.7
50°-60°	584.5	9.8
60°-70°	472.5	7.9
70°-80°	316.4	5.3
80°-90°	165.6	2.8
90°-100°	138.3	2.3
100°-110°	204.5	3.4
110°-120°	277.0	4.7
120°-130°	330.5	5.6
130°-140°	352.6	5.9
140°-150°	336.8	5.7
150°-160°	281.0	4.7
160°-170°	186.8	3.1
170°-180°	65.4	1.1
0°-30°	989.2	16.6
0°-40°	1602.9	26.9
0°-60°	2821.9	47.4
0°-90°	3776.4	63.5
90°-120°	619.9	10.4
90°-150°	1639.8	27.6
90°-180°	2173.0	36.5
0°-180°	5949.3	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1298	1298	1298	1298	1298	
5°	1298	1295	1286	1296	1295	123
15°	1239	1240	1232	1239	1234	349
25°	1126	1129	1122	1127	1121	518
35°	975	983	980	983	984	610
45°	803	816	823	832	833	619
55°	617	637	658	671	677	551
65°	425	454	485	503	509	422
75°	234	268	308	332	340	248
85°	70	112	156	183	195	75
90°	21	66	113	144	155	15
95°	52	86	134	165	176	50
105°	134	158	198	226	238	143
115°	239	252	285	306	314	237
125°	343	347	371	390	396	307
135°	442	445	454	470	475	341
145°	534	535	537	543	546	333
155°	610	610	610	612	610	281
165°	663	662	662	664	661	187
175°	689	687	687	690	687	65
180°	691	691	691	691	691	



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CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	1297.9	1297.9	1297.9	1297.9	1297.9	1297.9	1297.9	1297.9	1297.9	1297.9	1297.9
2.5°	1300.9	1300.4	1300.0	1299.6	1299.1	1298.1	1296.5	1294.9	1293.4	1291.8	1293.4
5°	1297.9	1297.3	1296.8	1296.2	1295.6	1294.3	1292.3	1290.3	1288.4	1286.4	1288.6
7.5°	1286.4	1286.2	1285.9	1285.7	1285.5	1284.4	1282.3	1280.3	1278.3	1276.2	1278.2
10°	1276.2	1276.2	1276.2	1276.2	1276.2	1275.1	1272.8	1270.5	1268.3	1266.0	1268.0
12.5°	1262.0	1262.2	1262.4	1262.6	1262.9	1262.1	1260.3	1258.5	1256.7	1254.8	1256.4
15°	1239.3	1239.6	1239.9	1240.2	1240.5	1239.6	1237.7	1235.7	1233.7	1231.7	1233.4
17.5°	1209.8	1210.3	1210.9	1211.4	1212.0	1211.4	1209.4	1207.4	1205.4	1203.4	1204.8
20°	1188.5	1189.0	1189.6	1190.1	1190.7	1190.0	1188.0	1186.0	1184.0	1182.0	1182.9
22.5°	1163.9	1165.0	1166.0	1167.1	1168.1	1167.4	1165.3	1163.1	1160.8	1158.7	1159.7
25°	1126.1	1126.9	1127.8	1128.6	1129.4	1129.1	1127.4	1125.7	1124.0	1122.3	1123.4
27.5°	1083.8	1085.1	1086.3	1087.6	1088.8	1088.4	1086.6	1084.6	1082.7	1080.8	1081.6
30°	1052.3	1054.0	1055.6	1057.3	1059.0	1059.0	1057.3	1055.6	1054.0	1052.3	1052.8
32.5°	1023.8	1025.2	1026.7	1028.2	1029.6	1029.7	1028.5	1027.3	1026.1	1024.8	1025.4
35°	974.7	976.7	978.6	980.6	982.6	983.2	982.3	981.5	980.6	979.8	980.6
37.5°	925.6	927.4	929.2	930.9	932.7	933.6	933.3	933.0	932.7	932.5	933.6
40°	891.9	894.2	896.5	898.7	901.0	902.0	901.7	901.4	901.2	900.9	902.0
42.5°	855.3	858.3	861.2	864.1	867.0	868.8	869.5	870.1	870.7	871.4	872.7
45°	802.9	806.0	809.1	812.2	815.3	817.6	819.0	820.4	821.8	823.2	825.2
47.5°	749.2	752.1	755.0	757.8	760.7	763.4	765.8	768.3	770.7	773.1	776.0
50°	712.6	715.7	718.8	721.9	725.0	728.1	731.2	734.3	737.4	740.6	743.7
52.5°	673.8	677.7	681.5	685.2	689.0	692.8	696.6	700.4	704.2	707.9	711.3
55°	617.1	621.6	626.1	630.7	635.2	639.7	644.2	648.8	653.3	657.8	660.9
57.5°	559.1	564.5	570.0	575.4	580.8	586.2	591.4	596.5	601.7	606.9	610.5
60°	520.4	526.0	531.7	537.3	543.0	548.7	554.3	560.0	565.6	571.3	575.5
62.5°	482.8	488.4	494.1	499.7	505.4	511.2	517.4	523.5	529.6	535.6	540.4
65°	425.0	431.5	438.0	444.5	451.0	457.6	464.4	471.2	478.0	484.7	489.0
67.5°	370.5	376.8	383.0	389.4	395.6	402.2	409.2	416.0	422.9	429.8	435.0
70°	330.8	337.3	343.8	350.3	356.8	363.7	371.1	378.4	385.8	393.1	398.5
72.5°	292.2	298.9	305.6	312.4	319.1	326.4	334.5	342.5	350.5	358.5	364.4
75°	234.1	241.5	248.8	256.2	263.5	271.7	280.8	289.8	298.9	307.9	313.6
77.5°	178.4	186.9	195.4	203.9	212.4	220.9	229.6	238.4	247.0	255.7	261.9
80°	143.7	152.2	160.7	169.2	177.7	186.7	196.3	205.9	215.6	225.2	231.4
82.5°	112.3	121.1	130.1	139.0	148.0	157.3	167.2	177.0	186.9	196.7	202.7
85°	69.9	79.3	88.6	97.9	107.3	116.9	126.8	136.7	146.6	156.5	162.7
87.5°	39.8	49.0	58.2	67.5	76.7	86.2	96.0	105.8	115.6	125.4	132.1
90°	20.9	30.9	40.9	50.9	60.9	71.2	81.6	92.1	102.5	112.9	120.1
92.5°	31.3	40.3	49.4	58.4	67.5	77.5	88.3	99.2	110.1	120.9	128.0
95°	51.5	59.1	66.6	74.3	81.8	91.0	101.9	112.6	123.5	134.3	141.4
97.5°	73.0	79.8	86.5	93.2	99.9	108.8	119.7	130.6	141.5	152.4	159.2
100°	89.3	95.2	101.1	107.1	113.0	121.3	131.9	142.5	153.1	163.7	170.7
102.5°	106.8	112.7	118.7	124.6	130.6	138.4	148.0	157.6	167.2	176.8	183.7
105°	134.0	139.2	144.3	149.4	154.6	161.6	170.9	180.1	189.3	198.5	204.9
107.5°	164.4	168.8	173.2	177.7	182.1	188.7	197.4	206.0	214.8	223.5	229.4
110°	185.3	189.3	193.2	197.3	201.2	207.4	215.7	223.9	232.1	240.4	246.2



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CANDELA DISTRIBUTION (continued):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	207.6	210.7	213.7	216.7	219.7	225.4	233.5	241.6	249.8	257.9	263.3
115°	239.4	241.9	244.3	246.8	249.2	254.2	261.8	269.4	277.0	284.6	289.5
117.5°	271.3	272.8	274.3	275.8	277.3	281.6	288.8	296.0	303.1	310.3	315.2
120°	291.9	293.3	294.7	296.2	297.7	301.7	308.3	314.9	321.6	328.2	333.0
122.5°	313.2	313.9	314.4	315.1	315.7	319.2	325.8	332.4	339.0	345.6	350.2
125°	343.3	343.7	344.1	344.6	345.1	348.2	353.9	359.7	365.4	371.3	375.5
127.5°	374.3	374.4	374.6	374.7	374.8	377.2	382.0	386.8	391.5	396.3	400.4
130°	393.6	394.0	394.3	394.5	394.9	397.2	401.3	405.6	409.7	414.0	417.8
132.5°	412.0	412.9	413.9	414.7	415.7	417.6	420.7	423.7	426.7	429.7	433.5
135°	442.3	442.8	443.3	443.7	444.1	445.4	447.5	449.6	451.7	453.7	457.4
137.5°	471.0	471.4	471.8	472.3	472.8	473.6	474.9	476.1	477.3	478.5	482.0
140°	488.4	489.0	489.7	490.2	490.8	491.4	492.1	492.8	493.3	494.0	497.4
142.5°	506.9	507.2	507.5	507.7	508.0	508.4	509.0	509.4	509.9	510.5	513.2
145°	534.1	534.3	534.5	534.7	534.9	535.2	535.6	535.9	536.3	536.6	538.0
147.5°	558.0	558.3	558.6	558.8	559.1	559.3	559.6	560.0	560.2	560.5	561.2
150°	574.8	574.7	574.6	574.5	574.3	574.5	575.0	575.4	575.9	576.4	576.4
152.5°	588.5	588.7	588.9	589.1	589.2	589.4	589.6	589.7	589.9	590.2	590.5
155°	609.7	609.7	609.7	609.7	609.7	609.8	609.9	610.0	610.2	610.3	610.8
157.5°	628.7	628.4	628.1	627.9	627.6	627.5	627.6	627.8	627.9	628.0	628.5
160°	639.9	639.5	639.1	638.8	638.4	638.3	638.4	638.6	638.7	638.8	639.2
162.5°	649.8	649.5	649.2	648.9	648.7	648.6	648.6	648.7	648.7	648.7	649.2
165°	663.0	662.7	662.5	662.2	662.0	661.9	662.0	662.2	662.3	662.4	662.9
167.5°	674.2	673.7	673.2	672.7	672.2	672.0	672.0	672.0	672.0	672.0	672.7
170°	680.1	679.7	679.2	678.7	678.3	678.1	678.1	678.1	678.1	678.1	678.7
172.5°	684.5	684.0	683.5	683.1	682.6	682.3	682.3	682.3	682.3	682.3	683.1
175°	689.3	688.8	688.3	687.9	687.4	687.2	687.2	687.2	687.2	687.2	687.9
177.5°	691.8	691.4	691.1	690.7	690.2	690.0	689.9	689.8	689.8	689.7	690.2
180°	691.0	691.0	691.0	691.0	691.0	691.0	691.0	691.0	691.0	691.0	691.0



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CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
0°	1297.9	1297.9	1297.9	1297.9	1297.9	1297.9	1297.9	1297.9
2.5°	1294.9	1296.5	1298.1	1298.7	1298.5	1298.3	1298.1	1297.9
5°	1290.9	1293.2	1295.4	1296.5	1296.2	1295.9	1295.6	1295.3
7.5°	1280.2	1282.1	1284.1	1285.0	1284.7	1284.4	1284.1	1283.8
10°	1270.0	1272.0	1273.9	1274.8	1274.5	1274.2	1273.9	1273.7
12.5°	1257.9	1259.4	1260.9	1261.3	1260.7	1259.9	1259.1	1258.4
15°	1235.1	1236.8	1238.5	1238.8	1237.7	1236.5	1235.4	1234.3
17.5°	1206.1	1207.3	1208.6	1208.9	1208.2	1207.6	1206.9	1206.3
20°	1183.7	1184.6	1185.4	1185.9	1185.9	1185.9	1185.9	1185.9
22.5°	1160.8	1161.9	1162.9	1163.1	1162.4	1161.8	1161.1	1160.5
25°	1124.5	1125.7	1126.8	1126.6	1125.2	1123.8	1122.4	1121.0
27.5°	1082.3	1083.2	1083.9	1084.1	1083.5	1083.1	1082.5	1082.0
30°	1053.4	1054.0	1054.5	1054.7	1054.4	1054.1	1053.9	1053.6
32.5°	1026.0	1026.5	1027.1	1027.2	1026.9	1026.6	1026.3	1026.1
35°	981.5	982.3	983.2	983.5	983.5	983.5	983.5	983.5
37.5°	934.7	935.9	937.0	937.5	937.4	937.3	937.1	937.0
40°	903.1	904.3	905.4	906.3	906.8	907.4	908.0	908.5
42.5°	874.0	875.4	876.8	877.5	877.6	877.7	877.9	878.0
45°	827.2	829.2	831.1	832.3	832.5	832.8	833.1	833.4
47.5°	778.9	781.7	784.7	786.4	787.0	787.7	788.2	788.9
50°	746.8	749.9	753.0	755.0	755.8	756.7	757.5	758.4
52.5°	714.6	717.9	721.3	723.3	723.9	724.5	725.2	725.8
55°	664.0	667.1	670.2	672.4	673.5	674.7	675.8	676.9
57.5°	614.1	617.6	621.2	623.4	624.2	625.1	625.9	626.8
60°	579.8	584.0	588.2	590.8	591.6	592.5	593.3	594.2
62.5°	545.1	549.8	554.5	557.3	558.5	559.5	560.5	561.7
65°	493.2	497.5	501.7	504.4	505.6	506.7	507.8	509.0
67.5°	440.1	445.3	450.4	453.7	455.2	456.7	458.1	459.6
70°	403.9	409.3	414.6	418.2	419.9	421.6	423.3	425.0
72.5°	370.2	376.1	381.8	385.4	386.6	387.9	389.1	390.4
75°	319.2	324.9	330.5	334.0	335.5	336.9	338.3	339.7
77.5°	268.2	274.4	280.6	284.3	285.4	286.5	287.7	288.8
80°	237.6	243.8	250.1	253.7	254.9	256.0	257.1	258.3
82.5°	208.7	214.7	220.6	224.7	226.8	228.8	230.8	232.8
85°	168.9	175.1	181.3	185.6	187.8	190.1	192.4	194.6
87.5°	138.6	145.2	151.8	156.2	158.3	160.3	162.4	164.5
90°	127.1	134.2	141.4	146.1	148.4	150.7	153.1	155.4
92.5°	135.1	142.1	149.2	153.8	156.1	158.3	160.5	162.8
95°	148.4	155.4	162.5	167.1	169.4	171.6	173.8	176.1
97.5°	165.9	172.6	179.4	183.7	185.8	187.8	189.9	192.0
100°	177.8	184.7	191.7	196.2	198.1	200.1	202.1	204.0
102.5°	190.6	197.5	204.3	208.9	210.8	212.9	214.9	217.0
105°	211.2	217.6	223.9	228.4	230.6	233.0	235.4	237.7
107.5°	235.4	241.3	247.3	251.1	252.9	254.6	256.3	258.1
110°	251.9	257.7	263.3	267.2	269.0	270.9	272.8	274.7



TEST NUMBER: P333263-830

CATALOG NUMBER: S125DIP-S1090D590U830-4F0-1E-UDD-D1

CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
112.5°	268.5	273.8	279.2	282.7	284.5	286.3	287.9	289.7
115°	294.5	299.5	304.4	307.7	309.3	310.9	312.5	314.1
117.5°	320.1	325.0	329.9	333.1	334.5	336.0	337.4	338.8
120°	337.8	342.6	347.4	350.4	351.7	352.9	354.1	355.3
122.5°	354.6	359.1	363.5	366.5	367.8	369.1	370.4	371.7
125°	379.8	384.1	388.4	391.2	392.5	393.8	395.0	396.3
127.5°	404.4	408.6	412.6	415.4	416.8	418.1	419.5	420.9
130°	421.6	425.5	429.3	431.8	433.0	434.1	435.4	436.5
132.5°	437.3	441.2	445.1	447.3	448.2	449.1	450.0	450.8
135°	461.1	464.8	468.4	470.8	471.7	472.7	473.6	474.6
137.5°	485.5	489.0	492.5	494.5	495.0	495.6	496.1	496.6
140°	500.7	504.1	507.4	509.3	509.9	510.4	511.0	511.4
142.5°	516.0	518.9	521.7	523.3	523.9	524.4	524.9	525.5
145°	539.4	540.8	542.2	543.4	544.1	544.9	545.7	546.5
147.5°	561.9	562.7	563.5	563.6	563.4	563.1	562.8	562.4
150°	576.4	576.4	576.4	576.5	576.5	576.6	576.6	576.6
152.5°	590.8	591.1	591.4	591.3	590.9	590.5	590.1	589.7
155°	611.2	611.7	612.2	612.2	611.5	611.0	610.3	609.7
157.5°	629.0	629.4	629.9	629.8	629.0	628.2	627.5	626.6
160°	639.7	640.2	640.6	640.6	640.1	639.4	638.9	638.3
162.5°	649.8	650.4	651.0	650.9	650.3	649.5	648.8	648.1
165°	663.4	663.8	664.4	664.2	663.5	662.8	662.0	661.4
167.5°	673.4	674.2	674.9	674.9	674.1	673.4	672.6	671.9
170°	679.5	680.1	680.9	680.8	680.0	679.2	678.3	677.5
172.5°	683.8	684.5	685.2	685.2	684.5	683.7	683.0	682.2
175°	688.6	689.3	690.0	689.9	689.2	688.3	687.5	686.6
177.5°	690.8	691.4	691.9	691.9	691.3	690.6	689.8	689.2
180°	691.0	691.0	691.0	691.0	691.0	691.0	691.0	691.0

(END OF REPORT)