

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: P333262-930

Luminaire Tested: **S125DIP-S1090D590U930-4F0-1E-UDD-D**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P333262-930  
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1807-864-7,  
Test Lab: INNOVATION CENTER  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: NEO-RAY  
Catalog Number: S125DIP-S1090D590U930-4F0-1E-UDD-D  
Description: DEFINE 5 DIRECT-INDIRECT PENDANT LED LUMINAIRE  
DOWNLIGHT 1090 LUMENS PER FOOT, DROP SATIN WHITE DIFFUSER  
UPLIGHT 590 LUMENS PER FOOT, NO LENS  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

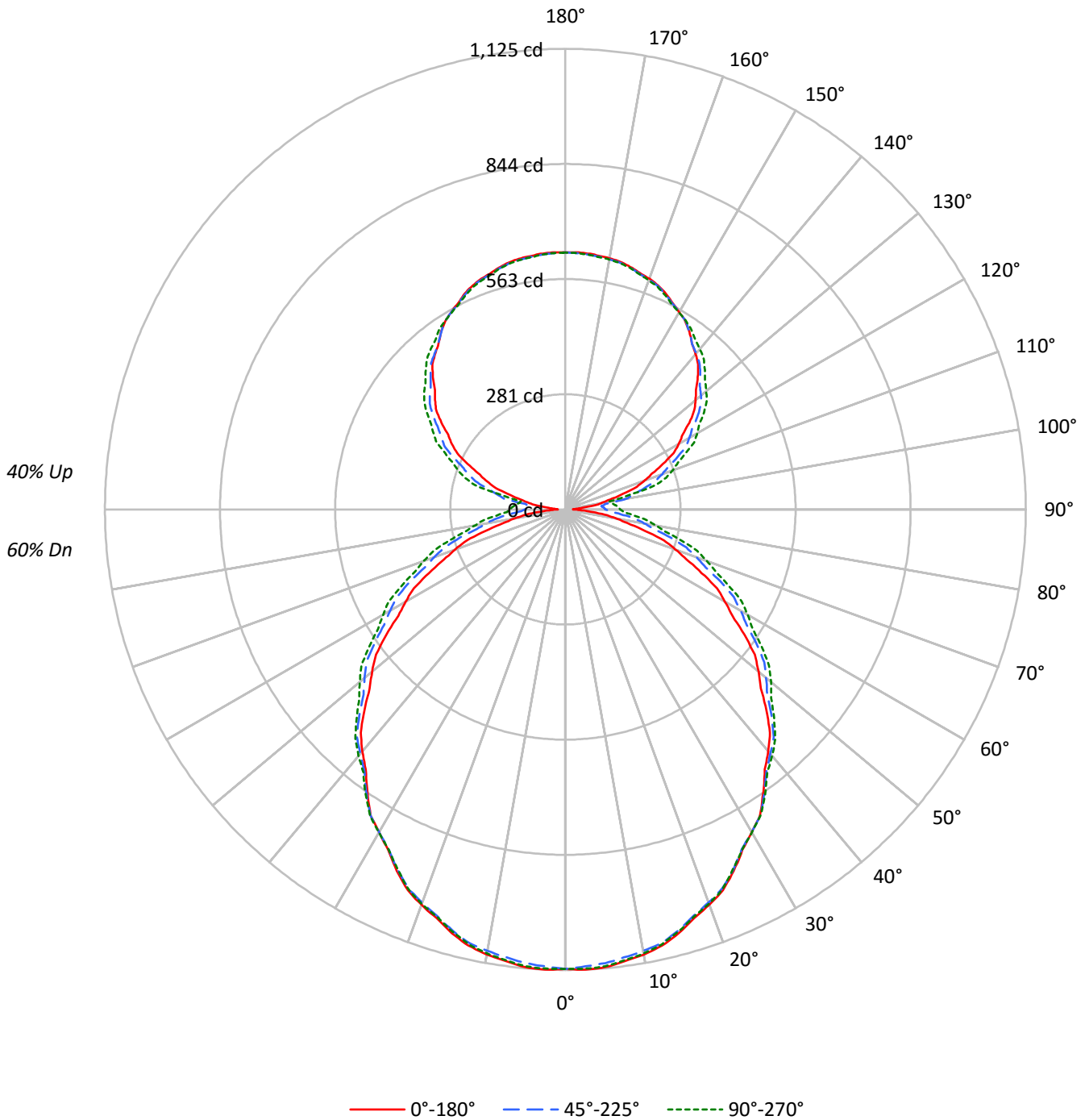
Lumens per Lamp: N/A  
Luminaire Lumens: 5405.4 lumens  
Efficiency: N/A  
Efficacy: 110.8 lumens/watt  
Spacing Criteria (0/90/45): 1.21 / 1.21 / 1.34  
Luminous Opening: Rectangular w/ Sides (W: 0.42' x L: 4' x H: 0.08')  
CIE Type: Semi-Direct

Input Watts (W): 48.8  
Input Voltage (V): 120  
Input Current (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: P333262-930

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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	102	102	102	102	89	89	89	77	77	77	66	66	66	60
1	99	94	90	86	92	88	85	81	77	74	71	66	64	62	57	55	54	49
2	90	82	75	70	84	77	71	66	67	62	58	58	54	51	49	47	45	40
3	82	72	64	58	76	67	60	55	59	53	49	51	47	43	43	40	38	34
4	75	63	55	49	70	59	52	46	52	46	41	45	40	37	39	35	32	29
5	69	56	48	42	64	53	45	40	46	40	36	40	36	32	35	31	28	25
6	63	51	42	36	59	48	40	34	42	36	31	36	31	28	31	28	24	22
7	58	46	37	32	54	43	35	30	38	32	27	33	28	24	29	25	22	19
8	54	41	33	28	51	39	32	27	35	29	24	30	25	22	26	22	19	17
9	51	38	30	25	47	36	29	24	32	26	22	28	23	20	24	20	17	15
10	47	35	27	22	44	33	26	21	29	24	20	26	21	18	23	19	16	14

**AVERAGE LUMINANCE (cd/sqm):**

	0°	45°	90°
0°	7251	7251	7251
5°	7265	7116	7139
10°	7213	6989	6979
15°	7128	6837	6775
20°	7012	6650	6572
25°	6874	6448	6320
30°	6707	6226	6092
35°	6552	6023	5884
40°	6393	5809	5674
45°	6214	5626	5487
50°	6043	5427	5322
55°	5837	5239	5128
60°	5611	5024	4931
65°	5377	4800	4709
70°	5112	4494	4480
75°	4688	4200	4198
80°	4134	3842	3893
85°	3621	3600	3798



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	106.2	2.0
10°-20°	301.3	5.6
20°-30°	448.2	8.3
30°-40°	530.9	9.8
40°-50°	548.9	10.2
50°-60°	505.6	9.4
60°-70°	408.7	7.6
70°-80°	273.7	5.1
80°-90°	143.2	2.6
90°-100°	102.5	1.9
100°-110°	199.3	3.7
110°-120°	294.2	5.4
120°-130°	349.5	6.5
130°-140°	361.6	6.7
140°-150°	332.2	6.1
150°-160°	267.2	4.9
160°-170°	172.8	3.2
170°-180°	59.6	1.1
0°-30°	855.7	15.8
0°-40°	1386.5	25.7
0°-60°	2441.0	45.2
0°-90°	3266.6	60.4
90°-120°	596.0	11.0
90°-150°	1639.3	30.3
90°-180°	2139.0	39.6
0°-180°	5405.4	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1123	1123	1123	1123	1123	
5°	1123	1120	1113	1121	1120	106
15°	1072	1073	1065	1071	1068	302
25°	974	977	971	975	970	448
35°	843	850	848	851	851	527
45°	694	706	712	719	721	536
55°	534	551	569	581	586	477
65°	368	393	419	435	440	365
75°	202	232	266	287	294	215
85°	60	97	135	159	168	64
90°	18	57	98	124	134	13
95°	41	68	88	113	122	45
105°	147	167	199	220	228	155
115°	263	274	302	320	324	261
125°	370	373	394	409	414	330
135°	458	460	466	479	482	353
145°	529	529	529	535	536	330
155°	582	579	580	581	577	268
165°	614	611	611	614	610	173
175°	628	625	625	628	625	60
180°	628	628	628	628	628	



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CATALOG NUMBER: S125DIP-S1090D590U930-4F0-1E-UDD-D

**CANDELA DISTRIBUTION (FULL):**

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	1122.7	1122.7	1122.7	1122.7	1122.7	1122.7	1122.7	1122.7	1122.7	1122.7	1122.7
2.5°	1125.3	1124.9	1124.5	1124.1	1123.7	1122.8	1121.4	1120.1	1118.8	1117.4	1118.8
5°	1122.7	1122.2	1121.7	1121.2	1120.7	1119.6	1117.9	1116.1	1114.4	1112.7	1114.7
7.5°	1112.7	1112.6	1112.3	1112.1	1112.0	1111.0	1109.2	1107.4	1105.7	1103.9	1105.6
10°	1103.9	1103.9	1103.9	1103.9	1103.9	1102.9	1101.0	1099.0	1097.1	1095.1	1096.8
12.5°	1091.6	1091.8	1092.0	1092.2	1092.4	1091.7	1090.1	1088.6	1087.0	1085.4	1086.8
15°	1072.0	1072.3	1072.5	1072.8	1073.0	1072.3	1070.6	1068.9	1067.1	1065.4	1066.9
17.5°	1046.4	1046.9	1047.4	1047.9	1048.4	1047.8	1046.1	1044.4	1042.7	1041.0	1042.1
20°	1028.0	1028.5	1029.0	1029.5	1030.0	1029.3	1027.6	1025.9	1024.2	1022.5	1023.2
22.5°	1006.8	1007.7	1008.6	1009.5	1010.4	1009.8	1008.0	1006.1	1004.1	1002.2	1003.1
25°	974.0	974.8	975.5	976.2	977.0	976.6	975.2	973.7	972.2	970.8	971.8
27.5°	937.5	938.6	939.6	940.8	941.8	941.5	939.9	938.2	936.5	934.9	935.6
30°	910.2	911.7	913.1	914.6	916.1	916.1	914.6	913.1	911.7	910.2	910.7
32.5°	885.6	886.8	888.1	889.4	890.6	890.7	889.7	888.6	887.5	886.5	887.0
35°	843.1	844.8	846.5	848.2	849.9	850.4	849.7	849.0	848.2	847.5	848.2
37.5°	800.6	802.2	803.7	805.3	806.8	807.6	807.3	807.1	806.8	806.6	807.6
40°	771.5	773.5	775.4	777.4	779.3	780.2	780.0	779.8	779.5	779.3	780.2
42.5°	739.8	742.4	744.9	747.5	750.0	751.5	752.1	752.6	753.2	753.7	754.9
45°	694.5	697.2	699.9	702.5	705.2	707.2	708.4	709.6	710.9	712.1	713.8
47.5°	648.1	650.5	653.1	655.5	658.0	660.3	662.4	664.6	666.7	668.7	671.2
50°	616.4	619.1	621.7	624.4	627.1	629.8	632.5	635.2	637.9	640.6	643.3
52.5°	582.9	586.2	589.5	592.7	596.0	599.2	602.6	605.8	609.1	612.4	615.3
55°	533.8	537.7	541.6	545.5	549.4	553.3	557.3	561.2	565.1	569.0	571.7
57.5°	483.6	488.3	493.0	497.7	502.4	507.0	511.5	516.0	520.5	525.0	528.1
60°	450.1	455.0	459.9	464.8	469.7	474.6	479.5	484.4	489.3	494.2	497.8
62.5°	417.6	422.5	427.4	432.3	437.2	442.2	447.5	452.8	458.1	463.3	467.4
65°	367.6	373.2	378.9	384.5	390.1	395.8	401.7	407.6	413.4	419.3	423.0
67.5°	320.5	326.0	331.3	336.8	342.2	347.9	353.9	359.9	365.8	371.8	376.3
70°	286.2	291.8	297.4	303.0	308.7	314.6	321.0	327.3	333.7	340.1	344.7
72.5°	252.7	258.5	264.3	270.2	276.0	282.3	289.3	296.3	303.2	310.1	315.2
75°	202.5	208.9	215.2	221.6	228.0	235.1	242.9	250.7	258.5	266.4	271.3
77.5°	154.3	161.7	169.0	176.3	183.7	191.1	198.6	206.2	213.7	221.2	226.6
80°	124.3	131.7	139.0	146.3	153.7	161.5	169.8	178.1	186.5	194.8	200.2
82.5°	97.1	104.8	112.5	120.3	128.0	136.1	144.6	153.1	161.7	170.2	175.4
85°	60.5	68.6	76.6	84.7	92.8	101.1	109.7	118.2	126.8	135.3	140.7
87.5°	34.4	42.4	50.4	58.4	66.4	74.6	83.1	91.6	100.0	108.4	114.2
90°	18.1	26.7	35.4	44.0	52.7	61.6	70.6	79.7	88.6	97.7	103.9
92.5°	23.0	29.7	36.4	43.0	49.7	57.6	66.7	75.9	85.0	94.2	100.1
95°	40.8	46.9	52.9	58.9	65.0	70.2	74.6	79.0	83.4	87.8	93.7
97.5°	68.3	74.6	80.9	87.2	93.4	96.7	97.0	97.3	97.5	97.8	100.0
100°	89.8	95.2	100.7	106.2	111.6	118.4	126.7	134.9	143.2	151.4	141.1
102.5°	111.6	116.8	121.9	127.0	132.2	138.7	146.5	154.4	162.3	170.2	172.2
105°	146.7	151.0	155.3	159.6	164.0	169.8	177.2	184.5	191.8	199.2	204.1
107.5°	183.1	186.5	189.8	193.1	196.4	201.7	209.0	216.2	223.5	230.7	235.5
110°	206.8	209.7	212.6	215.6	218.5	223.6	230.6	237.7	244.7	251.8	256.1



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**CANDELA DISTRIBUTION (continued):**

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	229.8	232.4	235.1	237.7	240.3	244.9	251.7	258.4	265.3	272.1	276.1
115°	263.3	265.6	267.8	270.0	272.3	276.6	283.1	289.6	296.0	302.5	306.5
117.5°	298.1	299.2	300.3	301.4	302.5	306.2	312.7	319.1	325.5	331.9	335.5
120°	320.4	321.1	321.7	322.3	322.9	326.2	332.2	338.1	344.1	349.9	353.9
122.5°	339.2	340.0	340.7	341.4	342.2	345.4	350.9	356.5	362.1	367.6	371.4
125°	369.6	370.1	370.5	371.0	371.5	374.1	379.0	383.9	388.8	393.7	397.2
127.5°	397.5	397.9	398.1	398.4	398.7	400.8	404.7	408.7	412.6	416.5	420.0
130°	415.4	415.7	416.0	416.2	416.5	418.4	421.9	425.5	429.0	432.5	435.6
132.5°	432.4	433.0	433.5	434.1	434.6	436.1	438.5	440.9	443.4	445.7	449.1
135°	457.6	458.0	458.4	458.7	459.1	460.1	461.5	463.0	464.6	466.0	469.0
137.5°	480.7	481.0	481.4	481.8	482.1	482.6	483.2	483.9	484.5	485.2	488.1
140°	495.1	495.3	495.5	495.7	495.9	496.1	496.3	496.4	496.5	496.7	499.5
142.5°	508.8	508.8	508.7	508.7	508.6	508.7	508.8	509.0	509.2	509.4	511.8
145°	529.0	529.0	529.0	529.0	528.9	528.9	528.9	528.9	528.9	528.9	530.2
147.5°	545.6	545.6	545.5	545.5	545.4	545.5	545.6	545.8	545.8	546.0	546.5
150°	556.8	556.6	556.4	556.2	556.0	556.0	556.2	556.4	556.6	556.8	557.0
152.5°	567.6	567.1	566.7	566.2	565.7	565.7	565.8	566.1	566.2	566.5	566.7
155°	581.5	580.8	580.2	579.6	578.9	578.8	578.9	579.2	579.4	579.6	579.9
157.5°	592.2	591.7	591.4	591.0	590.7	590.5	590.5	590.5	590.5	590.6	590.9
160°	599.6	599.0	598.3	597.7	597.1	596.9	597.0	597.0	597.1	597.3	597.7
162.5°	605.5	605.0	604.3	603.6	603.1	602.8	602.9	603.0	603.1	603.2	603.8
165°	613.5	612.9	612.3	611.7	611.1	610.8	610.9	611.0	611.1	611.2	611.8
167.5°	619.5	618.9	618.2	617.6	616.9	616.7	616.8	616.9	616.9	617.1	617.8
170°	622.9	622.2	621.4	620.7	620.0	619.6	619.7	619.9	620.0	620.0	620.9
172.5°	625.1	624.4	623.6	622.9	622.2	621.9	622.1	622.3	622.5	622.6	623.4
175°	627.5	626.9	626.2	625.7	625.0	624.8	624.8	625.0	625.1	625.2	626.0
177.5°	628.6	628.1	627.6	627.1	626.6	626.4	626.5	626.6	626.6	626.7	627.4
180°	627.5	627.5	627.5	627.5	627.5	627.5	627.5	627.5	627.5	627.5	627.5



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**CANDELA DISTRIBUTION (continued):**

	55°	60°	65°	70°	75°	80°	85°	90°
0°	1122.7	1122.7	1122.7	1122.7	1122.7	1122.7	1122.7	1122.7
2.5°	1120.1	1121.4	1122.8	1123.4	1123.2	1123.0	1122.8	1122.7
5°	1116.6	1118.6	1120.5	1121.4	1121.2	1121.0	1120.7	1120.5
7.5°	1107.3	1109.1	1110.8	1111.5	1111.3	1111.0	1110.8	1110.5
10°	1098.5	1100.2	1102.0	1102.7	1102.4	1102.2	1102.0	1101.7
12.5°	1088.1	1089.4	1090.7	1091.0	1090.5	1089.8	1089.2	1088.5
15°	1068.4	1069.8	1071.3	1071.5	1070.6	1069.6	1068.6	1067.6
17.5°	1043.3	1044.3	1045.5	1045.7	1045.1	1044.6	1044.0	1043.4
20°	1023.9	1024.7	1025.4	1025.8	1025.8	1025.8	1025.8	1025.8
22.5°	1004.1	1005.0	1005.9	1006.1	1005.5	1004.9	1004.4	1003.8
25°	972.7	973.7	974.7	974.5	973.3	972.1	970.9	969.6
27.5°	936.2	936.9	937.6	937.8	937.3	936.9	936.4	936.0
30°	911.2	911.7	912.2	912.3	912.1	911.8	911.6	911.3
32.5°	887.5	887.9	888.4	888.5	888.3	888.0	887.8	887.5
35°	849.0	849.7	850.4	850.8	850.8	850.8	850.8	850.8
37.5°	808.5	809.5	810.5	810.9	810.8	810.7	810.6	810.5
40°	781.2	782.2	783.2	783.9	784.4	784.9	785.4	785.9
42.5°	756.0	757.2	758.4	759.0	759.1	759.2	759.4	759.5
45°	715.5	717.2	718.9	719.9	720.2	720.4	720.6	720.9
47.5°	673.8	676.2	678.7	680.2	680.8	681.3	681.8	682.4
50°	646.0	648.7	651.3	653.1	653.8	654.5	655.3	656.0
52.5°	618.2	621.0	623.9	625.7	626.1	626.7	627.3	627.8
55°	574.4	577.1	579.8	581.6	582.6	583.6	584.6	585.5
57.5°	531.2	534.3	537.4	539.2	540.0	540.7	541.4	542.2
60°	501.5	505.2	508.8	511.0	511.8	512.5	513.2	514.0
62.5°	471.5	475.6	479.6	482.1	483.1	484.0	484.9	485.8
65°	426.6	430.3	434.0	436.3	437.3	438.3	439.3	440.3
67.5°	380.7	385.1	389.6	392.5	393.7	395.0	396.2	397.5
70°	349.4	354.0	358.7	361.7	363.2	364.7	366.2	367.6
72.5°	320.2	325.3	330.3	333.4	334.4	335.5	336.6	337.7
75°	276.1	281.0	285.9	288.9	290.2	291.4	292.6	293.8
77.5°	232.0	237.3	242.7	245.9	246.9	247.9	248.8	249.8
80°	205.5	210.9	216.3	219.5	220.5	221.4	222.4	223.4
82.5°	180.5	185.7	190.9	194.4	196.2	197.9	199.7	201.4
85°	146.1	151.5	156.9	160.5	162.5	164.4	166.4	168.4
87.5°	119.9	125.6	131.3	135.1	136.9	138.7	140.5	142.3
90°	110.0	116.1	122.3	126.4	128.3	130.4	132.4	134.4
92.5°	106.1	112.0	118.0	121.9	123.7	125.6	127.4	129.3
95°	99.5	105.5	111.4	115.2	116.9	118.6	120.3	122.1
97.5°	102.2	104.4	106.6	108.5	110.2	111.9	113.6	115.2
100°	130.9	120.6	110.3	105.7	106.7	107.8	108.8	109.9
102.5°	174.2	176.3	178.3	176.5	171.0	165.4	159.8	154.3
105°	209.0	213.9	218.7	222.0	223.6	225.2	226.8	228.4
107.5°	240.4	245.3	250.1	253.2	254.4	255.6	256.8	258.0
110°	260.4	264.7	269.1	272.1	274.0	275.8	277.6	279.4





TEST NUMBER: P333262-930

CATALOG NUMBER: S125DIP-S1090D590U930-4F0-1E-UDD-D

**CANDELA DISTRIBUTION (continued):**

	55°	60°	65°	70°	75°	80°	85°	90°
112.5°	280.1	284.2	288.3	291.1	292.7	294.2	295.8	297.3
115°	310.5	314.5	318.5	320.8	321.7	322.5	323.4	324.2
117.5°	339.2	342.8	346.4	348.9	350.3	351.6	353.1	354.5
120°	357.8	361.8	365.7	368.2	369.2	370.1	371.0	372.0
122.5°	375.2	379.0	382.7	385.0	385.9	386.7	387.6	388.5
125°	400.7	404.2	407.7	409.9	410.8	411.7	412.7	413.6
127.5°	423.4	426.7	430.2	432.2	432.8	433.5	434.1	434.8
130°	438.8	441.9	445.0	446.9	447.6	448.3	449.0	449.7
132.5°	452.5	455.8	459.2	461.1	461.6	462.2	462.7	463.2
135°	472.0	475.0	477.9	479.7	480.4	480.9	481.5	482.2
137.5°	491.1	493.9	496.8	498.6	499.0	499.5	499.9	500.3
140°	502.5	505.3	508.3	509.9	510.2	510.6	510.9	511.3
142.5°	514.1	516.4	518.8	520.2	520.5	520.8	521.2	521.5
145°	531.6	532.9	534.2	535.0	535.4	535.7	536.1	536.5
147.5°	547.1	547.6	548.0	548.2	547.9	547.6	547.2	547.0
150°	557.2	557.4	557.6	557.4	556.8	556.3	555.7	555.1
152.5°	566.9	567.1	567.3	567.0	566.4	565.7	565.0	564.3
155°	580.2	580.5	580.8	580.6	579.8	578.9	578.1	577.2
157.5°	591.3	591.6	591.9	591.7	590.8	590.0	589.1	588.3
160°	598.1	598.5	598.9	598.7	597.9	597.0	596.2	595.4
162.5°	604.4	605.0	605.5	605.4	604.5	603.6	602.7	601.7
165°	612.5	613.1	613.7	613.6	612.8	612.0	611.1	610.3
167.5°	618.6	619.3	620.0	620.0	619.1	618.1	617.2	616.2
170°	621.7	622.6	623.4	623.3	622.4	621.4	620.5	619.6
172.5°	624.1	624.9	625.7	625.6	624.6	623.7	622.7	621.8
175°	626.8	627.6	628.5	628.4	627.5	626.6	625.7	624.7
177.5°	627.9	628.5	629.1	629.0	628.4	627.7	627.0	626.4
180°	627.5	627.5	627.5	627.5	627.5	627.5	627.5	627.5

(END OF REPORT)