

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: P333253-930

Luminaire Tested: **S125DIP-S1090D365U930-4F0-1E-UDD-D**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P333253-930  
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-S1090D365U930-4F0-1E-UDD-D  
Description: DEFINE 5 DIRECT-INDIRECT PENDANT LED LUMINAIRE  
DOWNLIGHT 1090 LUMENS PER FOOT, DROP SATIN WHITE DIFFUSER  
UPLIGHT 365 LUMENS PER FOOT, NO LENS  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

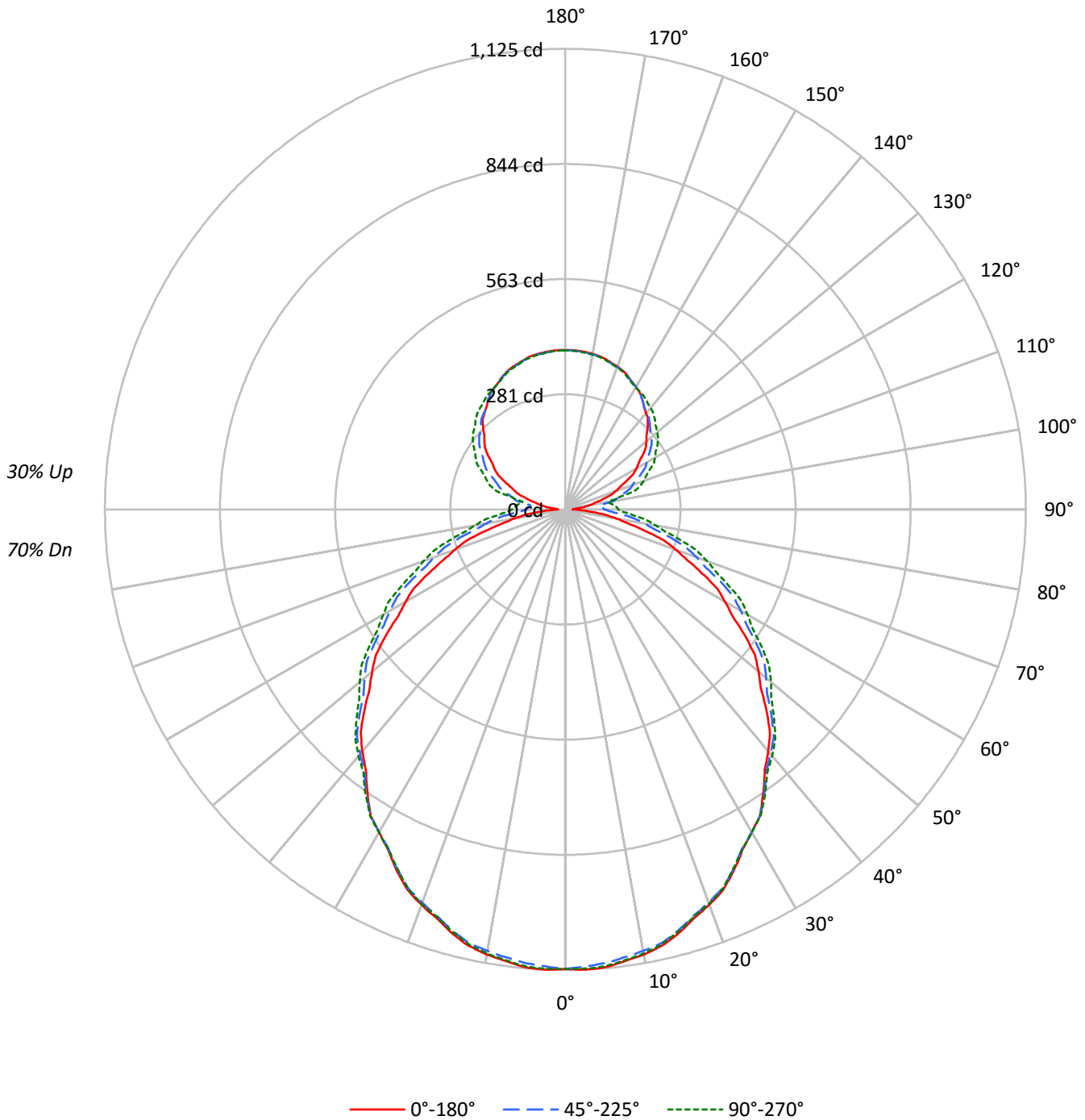
Lumens per Lamp: N/A  
Luminaire Lumens: 4671.8 lumens  
Efficiency: N/A  
Efficacy: 107.4 lumens/watt  
Spacing Criteria (0/90/45): 1.21 / 1.21 / 1.34  
Luminous Opening: Rectangular w/ Sides (W: 0.42' x L: 4' x H: 0.08')  
CIE Type: Semi-Direct

Input Watts (W): 43.5  
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



TEST NUMBER: P333253-930  
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### Luminous Intensity Polar Plot





TEST NUMBER: P333253-930

CATALOG NUMBER: S125DIP-S1090D365U930-4F0-1E-UDD-D

**COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:**

RF	20									20									20									20									20									20
RC	80									50									30									10									0									0
RW	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10	50	30	10	50	30	10	50	30	10	50	30	10	0																
RCR	0	112	112	112	112	106	106	106	106	94	94	94	84	84	84	74	74	74	74	74	74	74	74	74	74	74	74	74	70																	
	1	101	96	92	88	95	91	87	84	81	78	76	72	70	68	64	62	61	61	61	61	61	61	61	61	61	61	61	57																	
	2	92	84	77	71	86	79	73	68	71	66	62	63	59	56	56	53	50	50	50	50	50	50	50	50	50	50	50	47																	
	3	83	73	65	59	78	69	62	56	62	56	52	55	51	47	49	46	42	42	42	42	42	42	42	42	42	42	42	39																	
	4	76	65	56	50	72	61	54	48	55	49	44	49	44	40	44	40	36	36	36	36	36	36	36	36	36	36	36	33																	
	5	70	58	49	42	66	55	47	41	49	43	38	44	39	35	39	35	32	32	32	32	32	32	32	32	32	32	32	29																	
	6	65	52	43	37	61	49	41	35	44	38	33	40	34	30	36	31	28	28	28	28	28	28	28	28	28	28	28	25																	
	7	60	47	38	32	56	44	37	31	40	34	29	36	31	27	33	28	25	25	25	25	25	25	25	25	25	25	25	22																	
	8	55	42	34	29	52	40	33	28	37	30	26	33	28	24	30	25	22	22	22	22	22	22	22	22	22	22	22	20																	
	9	52	39	31	26	49	37	30	25	34	27	23	31	25	21	28	23	20	20	20	20	20	20	20	20	20	20	20	18																	
	10	48	36	28	23	46	34	27	22	31	25	21	28	23	19	26	21	18	18	18	18	18	18	18	18	18	18	18	16																	

**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



TEST NUMBER: P333253-930

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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	106.2	2.3
10°-20°	301.3	6.5
20°-30°	448.2	9.6
30°-40°	530.9	11.4
40°-50°	548.9	11.7
50°-60°	505.6	10.8
60°-70°	408.7	8.7
70°-80°	273.7	5.9
80°-90°	142.7	3.1
90°-100°	93.8	2.0
100°-110°	145.8	3.1
110°-120°	197.3	4.2
120°-130°	225.0	4.8
130°-140°	227.7	4.9
140°-150°	206.6	4.4
150°-160°	165.5	3.5
160°-170°	107.0	2.3
170°-180°	36.9	0.8
0°-30°	855.7	18.3
0°-40°	1386.5	29.7
0°-60°	2441.0	52.2
0°-90°	3266.1	69.9
90°-120°	436.8	9.4
90°-150°	1096.2	23.5
90°-180°	1406.0	30.1
0°-180°	4671.8	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	56	95	121	130	12
95°	31	58	85	110	118	32
105°	95	114	146	168	176	100
115°	166	176	204	222	227	164
125°	231	233	254	269	275	206
135°	284	285	292	305	310	219
145°	328	328	328	333	336	205
155°	360	359	359	360	358	166
165°	380	379	379	380	378	107
175°	389	387	387	389	387	37
180°	389	389	389	389	389	



TEST NUMBER: P333253-930

CATALOG NUMBER: S125DIP-S1090D365U930-4F0-1E-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	42.3	50.2	58.2	66.1	74.3	82.7	91.1	99.5	107.9	113.6
90°	17.9	26.3	34.6	42.9	51.3	59.8	68.6	77.4	86.1	94.9	100.8
92.5°	20.3	27.1	34.1	40.9	47.8	55.7	64.7	73.5	82.4	91.3	97.1
95°	30.7	36.9	43.0	49.2	55.4	61.4	67.3	73.2	79.1	85.0	90.7
97.5°	47.3	53.3	59.4	65.5	71.6	76.2	79.4	82.6	85.9	89.0	92.4
100°	60.3	65.6	70.9	76.2	81.5	88.2	96.4	104.4	112.5	120.6	116.2
102.5°	73.5	78.4	83.4	88.4	93.4	99.8	107.5	115.4	123.1	130.9	134.0
105°	94.7	98.8	103.0	107.1	111.3	117.1	124.4	131.8	139.1	146.4	151.3
107.5°	116.8	120.0	123.4	126.7	130.0	135.3	142.4	149.6	156.8	164.0	168.8
110°	131.0	134.0	136.9	139.8	142.8	147.7	154.7	161.7	168.7	175.6	180.1



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**CANDELA DISTRIBUTION (continued):**

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	145.4	147.8	150.3	152.9	155.3	160.0	166.7	173.4	180.2	186.9	191.1
115°	165.7	167.7	169.7	171.8	173.8	178.1	184.5	190.9	197.3	203.7	207.9
117.5°	186.8	187.9	189.0	190.1	191.2	194.9	201.1	207.4	213.7	220.0	223.8
120°	200.6	201.3	201.9	202.6	203.3	206.5	212.4	218.2	224.0	229.8	233.8
122.5°	212.0	212.5	213.1	213.7	214.3	217.4	222.9	228.4	233.9	239.5	243.3
125°	230.6	230.8	231.1	231.2	231.5	234.0	238.9	243.8	248.7	253.6	257.2
127.5°	247.6	247.7	247.7	247.8	247.9	249.9	253.9	257.9	261.8	265.8	269.3
130°	258.6	258.7	258.8	258.9	258.9	260.7	264.2	267.7	271.2	274.7	277.9
132.5°	268.8	269.1	269.5	269.8	270.1	271.5	274.0	276.5	279.0	281.5	284.9
135°	284.4	284.5	284.6	284.8	284.9	285.8	287.3	288.9	290.5	292.1	295.1
137.5°	298.6	298.7	298.9	299.0	299.1	299.5	300.3	301.0	301.7	302.4	305.3
140°	307.1	307.3	307.4	307.5	307.7	307.9	308.0	308.2	308.3	308.6	311.4
142.5°	315.7	315.6	315.4	315.4	315.2	315.2	315.4	315.5	315.7	315.8	318.1
145°	328.2	328.1	328.0	327.8	327.8	327.7	327.7	327.7	327.7	327.7	329.0
147.5°	338.0	338.0	338.0	337.9	337.9	337.9	338.0	338.1	338.2	338.3	338.8
150°	345.0	344.9	344.7	344.5	344.5	344.5	344.5	344.7	344.9	345.0	345.1
152.5°	351.6	351.4	351.1	350.8	350.5	350.4	350.6	350.7	350.8	351.0	351.1
155°	360.3	359.9	359.5	359.1	358.7	358.6	358.7	358.8	359.0	359.1	359.3
157.5°	366.9	366.6	366.4	366.2	366.0	365.8	365.8	365.9	365.9	365.9	366.1
160°	371.5	371.1	370.7	370.3	370.0	369.8	369.8	369.9	370.0	370.1	370.3
162.5°	375.2	374.8	374.4	374.0	373.7	373.5	373.6	373.6	373.7	373.7	374.1
165°	380.1	379.8	379.4	379.0	378.6	378.5	378.5	378.5	378.6	378.7	379.0
167.5°	383.8	383.4	383.0	382.6	382.2	382.0	382.1	382.2	382.3	382.3	382.8
170°	385.9	385.5	385.0	384.6	384.1	383.9	384.0	384.0	384.1	384.2	384.7
172.5°	387.3	386.9	386.4	386.0	385.5	385.3	385.4	385.6	385.6	385.8	386.2
175°	388.7	388.4	388.0	387.6	387.3	387.1	387.1	387.2	387.3	387.3	387.8
177.5°	389.5	389.1	388.8	388.6	388.2	388.1	388.2	388.2	388.2	388.3	388.7
180°	388.7	388.7	388.7	388.7	388.7	388.7	388.7	388.7	388.7	388.7	388.7



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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°	119.3	125.0	130.7	134.4	136.2	137.9	139.7	141.4
90°	106.7	112.7	118.6	122.5	124.5	126.4	128.2	130.2
92.5°	102.8	108.6	114.3	118.1	119.9	121.7	123.5	125.3
95°	96.4	102.1	107.8	111.5	113.2	114.9	116.6	118.3
97.5°	95.7	99.0	102.3	104.8	106.5	108.2	109.8	111.5
100°	111.8	107.4	103.0	101.3	102.6	103.8	105.0	106.2
102.5°	137.1	140.3	143.4	143.6	140.6	137.8	134.9	132.0
105°	156.2	161.1	166.0	169.3	170.9	172.5	174.2	175.9
107.5°	173.7	178.6	183.4	186.5	187.8	189.1	190.5	191.8
110°	184.6	189.0	193.5	196.6	198.4	200.2	201.9	203.7





TEST NUMBER: P333253-930

CATALOG NUMBER: S125DIP-S1090D365U930-4F0-1E-UDD-D

**CANDELA DISTRIBUTION (continued):**

	55°	60°	65°	70°	75°	80°	85°	90°
112.5°	195.3	199.5	203.7	206.6	208.2	209.9	211.5	213.1
115°	212.1	216.1	220.3	222.9	224.0	225.1	226.2	227.3
117.5°	227.6	231.5	235.2	237.9	239.4	240.9	242.4	243.9
120°	237.8	241.9	245.9	248.5	249.6	250.8	251.9	253.1
122.5°	247.1	250.9	254.8	257.2	258.3	259.4	260.5	261.6
125°	260.9	264.6	268.2	270.5	271.6	272.6	273.6	274.7
127.5°	272.7	276.2	279.7	281.9	282.8	283.8	284.8	285.7
130°	281.1	284.4	287.6	289.7	290.6	291.5	292.4	293.3
132.5°	288.3	291.7	295.1	297.1	297.8	298.6	299.2	299.9
135°	298.2	301.3	304.3	306.2	307.1	307.9	308.8	309.6
137.5°	308.3	311.2	314.1	315.8	316.5	317.2	317.8	318.5
140°	314.2	317.0	319.8	321.6	322.1	322.7	323.3	323.9
142.5°	320.4	322.8	325.1	326.5	327.1	327.8	328.3	328.9
145°	330.3	331.5	332.8	333.8	334.4	334.9	335.6	336.1
147.5°	339.2	339.7	340.1	340.4	340.4	340.3	340.3	340.3
150°	345.2	345.4	345.4	345.4	345.1	344.9	344.6	344.3
152.5°	351.2	351.3	351.5	351.3	350.9	350.5	350.1	349.7
155°	359.5	359.6	359.9	359.7	359.2	358.7	358.2	357.7
157.5°	366.3	366.5	366.7	366.6	366.1	365.5	365.0	364.5
160°	370.6	370.8	371.0	371.0	370.4	369.9	369.4	368.9
162.5°	374.5	374.8	375.2	375.0	374.5	373.9	373.4	372.8
165°	379.4	379.8	380.3	380.2	379.7	379.1	378.6	378.1
167.5°	383.3	383.7	384.2	384.1	383.5	382.9	382.4	381.8
170°	385.1	385.7	386.2	386.2	385.6	385.1	384.4	383.8
172.5°	386.7	387.2	387.6	387.6	387.0	386.4	385.8	385.2
175°	388.3	388.9	389.4	389.4	388.7	388.2	387.6	387.0
177.5°	389.1	389.4	389.7	389.7	389.3	388.9	388.5	388.1
180°	388.7	388.7	388.7	388.7	388.7	388.7	388.7	388.7

(END OF REPORT)