

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: P333253-940

Luminaire Tested: **S125DIP-S1090D365U940-4F0-1E-UDD-D**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P333253-940  
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-S1090D365U940-4F0-1E-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: 5109.7 lumens  
Efficiency: N/A  
Efficacy: 117.5 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

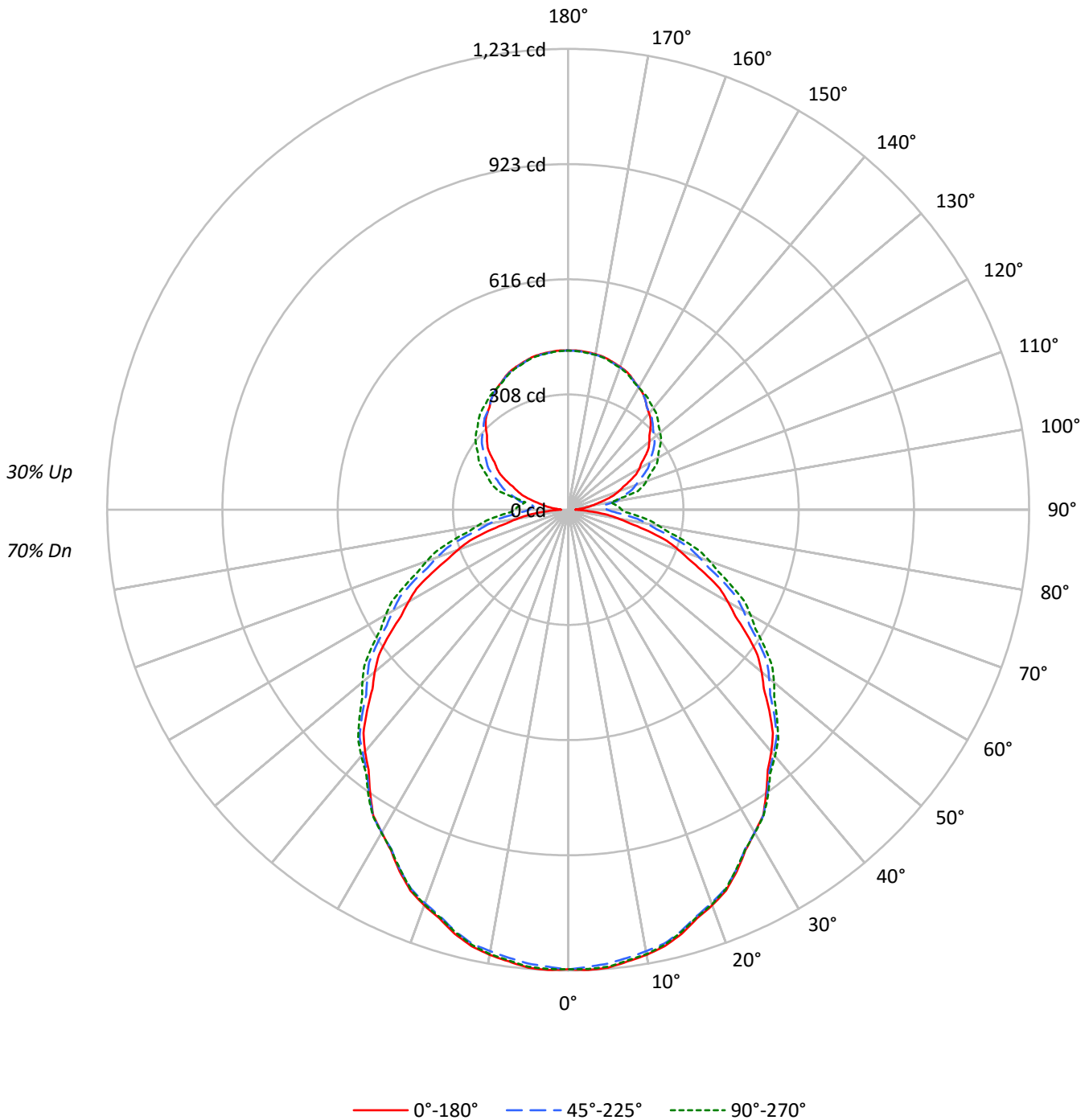
Input Watts (W): 43.5  
Input Voltage (V): 120  
Input Current (A<sub>in</sub>): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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

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

	0°	45°	90°
0°	7930	7930	7930
5°	7946	7783	7808
10°	7889	7644	7633
15°	7796	7478	7410
20°	7670	7273	7188
25°	7518	7053	6912
30°	7336	6810	6664
35°	7165	6588	6435
40°	6992	6353	6205
45°	6796	6152	6001
50°	6609	5935	5821
55°	6384	5729	5609
60°	6137	5495	5392
65°	5882	5250	5150
70°	5590	4914	4900
75°	5128	4592	4592
80°	4524	4201	4257
85°	3962	3938	4152



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	116.1	2.3
10°-20°	329.6	6.5
20°-30°	490.2	9.6
30°-40°	580.6	11.4
40°-50°	600.3	11.7
50°-60°	553.0	10.8
60°-70°	447.0	8.7
70°-80°	299.4	5.9
80°-90°	156.1	3.1
90°-100°	102.6	2.0
100°-110°	159.5	3.1
110°-120°	215.8	4.2
120°-130°	246.1	4.8
130°-140°	249.1	4.9
140°-150°	226.0	4.4
150°-160°	181.0	3.5
160°-170°	117.1	2.3
170°-180°	40.4	0.8
0°-30°	935.9	18.3
0°-40°	1516.5	29.7
0°-60°	2669.7	52.2
0°-90°	3572.2	69.9
90°-120°	477.8	9.4
90°-150°	1198.9	23.5
90°-180°	1537.0	30.1
0°-180°	5109.7	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1228	1228	1228	1228	1228	
5°	1228	1225	1217	1226	1226	116
15°	1172	1173	1165	1172	1168	330
25°	1065	1068	1062	1066	1060	490
35°	922	930	927	930	930	577
45°	760	772	779	787	788	586
55°	584	603	622	635	640	522
65°	402	430	459	476	482	399
75°	222	253	291	314	321	235
85°	66	106	148	174	184	70
90°	20	61	104	132	142	14
95°	34	64	93	120	129	35
105°	104	125	160	183	192	110
115°	181	192	223	242	249	180
125°	252	255	277	295	300	225
135°	311	312	320	334	339	240
145°	359	358	358	365	368	224
155°	394	392	393	394	391	181
165°	416	414	414	416	414	117
175°	425	424	424	426	423	40
180°	425	425	425	425	425	



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CATALOG NUMBER: S125DIP-S1090D365U940-4F0-1E-UDD-D

**CANDELA DISTRIBUTION (FULL):**

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	1227.9	1227.9	1227.9	1227.9	1227.9	1227.9	1227.9	1227.9	1227.9	1227.9	1227.9
2.5°	1230.7	1230.3	1229.8	1229.5	1229.0	1228.1	1226.5	1225.0	1223.6	1222.1	1223.6
5°	1227.9	1227.4	1226.8	1226.3	1225.7	1224.5	1222.6	1220.8	1218.9	1217.0	1219.1
7.5°	1217.0	1216.8	1216.6	1216.4	1216.2	1215.1	1213.2	1211.2	1209.3	1207.4	1209.2
10°	1207.4	1207.4	1207.4	1207.4	1207.4	1206.3	1204.2	1202.0	1199.9	1197.7	1199.6
12.5°	1193.9	1194.1	1194.4	1194.5	1194.8	1194.0	1192.3	1190.6	1188.9	1187.1	1188.7
15°	1172.5	1172.8	1173.0	1173.3	1173.6	1172.8	1170.9	1169.0	1167.2	1165.3	1166.9
17.5°	1144.5	1145.0	1145.6	1146.1	1146.7	1146.0	1144.2	1142.3	1140.4	1138.5	1139.8
20°	1124.4	1124.9	1125.4	1126.0	1126.5	1125.8	1123.9	1122.0	1120.2	1118.3	1119.1
22.5°	1101.2	1102.2	1103.1	1104.1	1105.1	1104.5	1102.4	1100.4	1098.2	1096.2	1097.2
25°	1065.3	1066.1	1066.9	1067.7	1068.5	1068.2	1066.6	1065.0	1063.4	1061.8	1062.8
27.5°	1025.4	1026.5	1027.7	1028.9	1030.1	1029.7	1028.0	1026.1	1024.3	1022.5	1023.2
30°	995.5	997.1	998.7	1000.3	1001.9	1001.9	1000.3	998.7	997.1	995.5	996.0
32.5°	968.6	969.9	971.3	972.8	974.1	974.2	973.0	971.9	970.7	969.6	970.1
35°	922.1	924.0	925.9	927.7	929.6	930.1	929.3	928.5	927.7	926.9	927.7
37.5°	875.7	877.4	879.0	880.7	882.4	883.2	883.0	882.7	882.4	882.2	883.2
40°	843.8	846.0	848.1	850.2	852.4	853.4	853.1	852.8	852.6	852.3	853.4
42.5°	809.1	812.0	814.8	817.5	820.3	822.0	822.6	823.1	823.8	824.4	825.6
45°	759.6	762.5	765.4	768.4	771.3	773.5	774.8	776.1	777.5	778.8	780.7
47.5°	708.8	711.5	714.3	716.9	719.7	722.2	724.5	726.8	729.2	731.4	734.1
50°	674.1	677.1	680.0	683.0	685.9	688.8	691.8	694.7	697.7	700.6	703.6
52.5°	637.5	641.1	644.7	648.3	651.8	655.4	659.1	662.6	666.2	669.8	673.0
55°	583.8	588.1	592.4	596.6	600.9	605.2	609.5	613.8	618.0	622.3	625.3
57.5°	529.0	534.0	539.2	544.4	549.5	554.6	559.5	564.4	569.3	574.2	577.6
60°	492.3	497.7	503.0	508.4	513.7	519.1	524.4	529.8	535.1	540.5	544.5
62.5°	456.7	462.1	467.4	472.8	478.1	483.7	489.5	495.3	501.1	506.8	511.2
65°	402.1	408.2	414.4	420.5	426.7	432.9	439.3	445.8	452.2	458.6	462.6
67.5°	350.5	356.5	362.4	368.4	374.3	380.5	387.1	393.6	400.1	406.6	411.5
70°	313.0	319.1	325.3	331.4	337.6	344.1	351.1	358.0	365.0	371.9	377.0
72.5°	276.4	282.8	289.1	295.5	301.8	308.8	316.5	324.0	331.6	339.2	344.7
75°	221.5	228.5	235.4	242.4	249.3	257.1	265.6	274.2	282.8	291.3	296.7
77.5°	168.8	176.8	184.9	192.9	200.9	209.0	217.2	225.5	233.7	241.9	247.8
80°	136.0	144.0	152.0	160.1	168.1	176.6	185.7	194.8	203.9	213.0	218.9
82.5°	106.2	114.6	123.1	131.5	140.0	148.8	158.2	167.5	176.8	186.1	191.8
85°	66.2	75.0	83.8	92.6	101.5	110.6	119.9	129.3	138.7	148.0	153.9
87.5°	37.6	46.3	54.9	63.7	72.3	81.2	90.4	99.6	108.8	118.0	124.2
90°	19.6	28.7	37.8	46.9	56.1	65.5	75.0	84.6	94.2	103.8	110.2
92.5°	22.2	29.7	37.3	44.8	52.3	60.9	70.7	80.4	90.2	99.9	106.2
95°	33.6	40.4	47.1	53.9	60.6	67.1	73.7	80.1	86.5	92.9	99.2
97.5°	51.7	58.3	65.0	71.6	78.3	83.4	86.9	90.3	93.9	97.4	101.0
100°	65.9	71.7	77.6	83.4	89.2	96.5	105.4	114.2	123.1	131.9	127.1
102.5°	80.3	85.8	91.2	96.7	102.1	109.1	117.6	126.2	134.6	143.2	146.6
105°	103.5	108.1	112.6	117.2	121.7	128.0	136.1	144.1	152.1	160.2	165.5
107.5°	127.7	131.3	134.9	138.6	142.2	147.9	155.8	163.6	171.5	179.3	184.7
110°	143.3	146.5	149.7	152.9	156.1	161.6	169.2	176.8	184.5	192.1	197.0



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**CANDELA DISTRIBUTION (continued):**

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	159.0	161.7	164.4	167.2	169.9	175.0	182.4	189.7	197.1	204.4	209.0
115°	181.2	183.4	185.7	187.9	190.1	194.7	201.8	208.7	215.8	222.8	227.4
117.5°	204.3	205.5	206.7	207.9	209.1	213.2	220.0	226.9	233.7	240.6	244.8
120°	219.5	220.2	220.9	221.6	222.3	225.9	232.3	238.6	245.0	251.4	255.7
122.5°	231.8	232.5	233.1	233.7	234.3	237.7	243.8	249.8	255.8	261.9	266.1
125°	252.3	252.4	252.7	252.9	253.2	255.9	261.3	266.6	272.0	277.3	281.3
127.5°	270.8	270.9	270.9	271.0	271.1	273.3	277.7	282.0	286.3	290.7	294.5
130°	282.9	282.9	283.0	283.1	283.2	285.2	289.0	292.7	296.6	300.4	304.0
132.5°	294.0	294.4	294.7	295.1	295.4	296.9	299.7	302.5	305.1	307.9	311.7
135°	311.0	311.1	311.3	311.5	311.6	312.5	314.2	316.0	317.7	319.5	322.8
137.5°	326.5	326.7	326.9	327.0	327.2	327.6	328.4	329.2	330.0	330.7	333.9
140°	335.9	336.1	336.3	336.4	336.5	336.7	336.9	337.1	337.2	337.5	340.5
142.5°	345.3	345.2	345.0	344.9	344.7	344.7	344.9	345.1	345.3	345.4	347.9
145°	359.0	358.8	358.7	358.6	358.5	358.4	358.4	358.4	358.4	358.4	359.8
147.5°	369.7	369.7	369.7	369.6	369.6	369.6	369.7	369.8	369.9	370.0	370.5
150°	377.3	377.2	377.0	376.8	376.7	376.7	376.8	377.0	377.2	377.3	377.5
152.5°	384.6	384.3	384.0	383.7	383.3	383.3	383.4	383.6	383.7	383.9	384.0
155°	394.0	393.6	393.2	392.7	392.4	392.2	392.4	392.4	392.6	392.7	393.0
157.5°	401.3	401.0	400.7	400.5	400.3	400.1	400.1	400.2	400.2	400.2	400.4
160°	406.3	405.9	405.5	405.0	404.7	404.5	404.5	404.6	404.7	404.7	405.0
162.5°	410.4	409.9	409.5	409.0	408.7	408.5	408.6	408.6	408.7	408.8	409.1
165°	415.7	415.4	414.9	414.5	414.1	413.9	413.9	414.0	414.1	414.2	414.6
167.5°	419.8	419.4	418.9	418.5	418.0	417.9	417.9	418.0	418.1	418.1	418.7
170°	422.0	421.6	421.1	420.6	420.1	419.9	420.0	420.0	420.1	420.2	420.7
172.5°	423.6	423.1	422.6	422.1	421.6	421.4	421.5	421.7	421.8	422.0	422.4
175°	425.2	424.8	424.4	423.9	423.6	423.4	423.4	423.5	423.6	423.7	424.2
177.5°	426.0	425.6	425.3	425.0	424.6	424.5	424.5	424.6	424.6	424.7	425.1
180°	425.2	425.2	425.2	425.2	425.2	425.2	425.2	425.2	425.2	425.2	425.2



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**CANDELA DISTRIBUTION (continued):**

	55°	60°	65°	70°	75°	80°	85°	90°
0°	1227.9	1227.9	1227.9	1227.9	1227.9	1227.9	1227.9	1227.9
2.5°	1225.0	1226.5	1228.1	1228.7	1228.5	1228.2	1228.1	1227.9
5°	1221.3	1223.4	1225.6	1226.5	1226.3	1226.0	1225.7	1225.5
7.5°	1211.1	1213.0	1214.9	1215.7	1215.4	1215.1	1214.9	1214.6
10°	1201.5	1203.4	1205.2	1206.0	1205.8	1205.5	1205.2	1205.0
12.5°	1190.1	1191.5	1192.9	1193.3	1192.7	1191.9	1191.2	1190.5
15°	1168.5	1170.1	1171.7	1172.0	1170.9	1169.8	1168.8	1167.7
17.5°	1141.0	1142.2	1143.4	1143.7	1143.1	1142.5	1141.8	1141.2
20°	1119.9	1120.7	1121.5	1122.0	1122.0	1122.0	1122.0	1122.0
22.5°	1098.2	1099.2	1100.2	1100.4	1099.7	1099.1	1098.5	1097.9
25°	1063.9	1065.0	1066.0	1065.9	1064.5	1063.2	1061.8	1060.5
27.5°	1024.0	1024.8	1025.5	1025.6	1025.1	1024.7	1024.1	1023.7
30°	996.6	997.1	997.6	997.8	997.6	997.3	997.0	996.8
32.5°	970.6	971.2	971.7	971.8	971.5	971.3	971.0	970.7
35°	928.5	929.3	930.1	930.5	930.5	930.5	930.5	930.5
37.5°	884.3	885.4	886.4	886.9	886.8	886.7	886.5	886.4
40°	854.4	855.5	856.6	857.4	857.9	858.4	859.0	859.5
42.5°	826.9	828.2	829.5	830.2	830.3	830.4	830.5	830.6
45°	782.6	784.4	786.3	787.4	787.6	787.9	788.2	788.5
47.5°	736.9	739.6	742.3	744.0	744.6	745.2	745.7	746.4
50°	706.5	709.4	712.4	714.3	715.1	715.9	716.7	717.5
52.5°	676.1	679.2	682.4	684.3	684.8	685.5	686.1	686.6
55°	628.2	631.2	634.1	636.1	637.2	638.3	639.4	640.4
57.5°	580.9	584.3	587.7	589.8	590.6	591.4	592.2	593.0
60°	548.5	552.5	556.5	558.9	559.7	560.5	561.3	562.1
62.5°	515.7	520.1	524.6	527.3	528.3	529.3	530.3	531.4
65°	466.6	470.6	474.7	477.2	478.3	479.4	480.5	481.5
67.5°	416.3	421.2	426.1	429.3	430.6	432.0	433.4	434.8
70°	382.1	387.2	392.3	395.7	397.3	398.9	400.5	402.1
72.5°	350.3	355.8	361.2	364.6	365.8	366.9	368.1	369.3
75°	302.0	307.4	312.7	316.0	317.4	318.7	320.0	321.4
77.5°	253.7	259.6	265.5	268.9	270.0	271.1	272.2	273.2
80°	224.8	230.7	236.6	240.0	241.1	242.2	243.3	244.3
82.5°	197.4	203.1	208.7	212.6	214.5	216.4	218.4	220.3
85°	159.8	165.7	171.6	175.6	177.7	179.9	182.0	184.1
87.5°	130.5	136.7	142.9	147.0	148.9	150.8	152.8	154.6
90°	116.7	123.2	129.7	134.0	136.2	138.2	140.3	142.4
92.5°	112.4	118.8	125.0	129.2	131.2	133.1	135.1	137.1
95°	105.4	111.6	117.9	121.9	123.8	125.6	127.5	129.4
97.5°	104.7	108.3	111.9	114.7	116.5	118.3	120.1	121.9
100°	122.3	117.4	112.6	110.8	112.2	113.5	114.9	116.2
102.5°	150.0	153.5	156.9	157.0	153.8	150.7	147.6	144.4
105°	170.9	176.2	181.6	185.1	186.9	188.7	190.6	192.3
107.5°	189.9	195.3	200.5	203.9	205.4	206.9	208.3	209.7
110°	201.9	206.7	211.6	215.0	217.0	218.9	220.9	222.7





TEST NUMBER: P333253-940

CATALOG NUMBER: S125DIP-S1090D365U940-4F0-1E-UDD-D

**CANDELA DISTRIBUTION (continued):**

	55°	60°	65°	70°	75°	80°	85°	90°
112.5°	213.6	218.2	222.8	226.0	227.7	229.5	231.3	233.1
115°	231.9	236.4	240.9	243.8	245.0	246.2	247.4	248.6
117.5°	249.0	253.2	257.3	260.2	261.8	263.5	265.1	266.8
120°	260.1	264.6	268.9	271.8	273.0	274.3	275.5	276.8
122.5°	270.3	274.5	278.7	281.3	282.5	283.7	284.9	286.1
125°	285.3	289.4	293.4	295.9	297.0	298.2	299.3	300.4
127.5°	298.3	302.1	305.9	308.4	309.3	310.4	311.5	312.5
130°	307.5	311.0	314.6	316.8	317.8	318.8	319.8	320.7
132.5°	315.3	319.1	322.7	324.9	325.7	326.5	327.3	328.1
135°	326.2	329.5	332.8	334.9	335.9	336.8	337.7	338.6
137.5°	337.2	340.4	343.5	345.4	346.2	346.9	347.6	348.3
140°	343.7	346.7	349.8	351.7	352.3	352.9	353.7	354.3
142.5°	350.4	353.0	355.5	357.1	357.8	358.5	359.1	359.7
145°	361.2	362.6	364.0	365.1	365.7	366.3	367.0	367.7
147.5°	371.0	371.5	372.0	372.3	372.3	372.2	372.2	372.2
150°	377.6	377.7	377.8	377.8	377.5	377.2	376.9	376.6
152.5°	384.1	384.2	384.4	384.2	383.8	383.3	382.9	382.5
155°	393.2	393.3	393.6	393.4	392.9	392.3	391.7	391.2
157.5°	400.6	400.8	401.1	400.9	400.4	399.8	399.2	398.7
160°	405.3	405.6	405.8	405.7	405.1	404.6	404.0	403.5
162.5°	409.6	409.9	410.4	410.2	409.6	408.9	408.4	407.8
165°	415.0	415.4	415.9	415.8	415.3	414.6	414.1	413.6
167.5°	419.2	419.6	420.2	420.1	419.5	418.8	418.2	417.6
170°	421.2	421.9	422.4	422.4	421.8	421.2	420.4	419.8
172.5°	422.9	423.5	423.9	423.9	423.3	422.6	422.0	421.3
175°	424.7	425.3	425.9	425.9	425.2	424.5	423.9	423.3
177.5°	425.5	425.9	426.2	426.2	425.8	425.3	424.9	424.5
180°	425.2	425.2	425.2	425.2	425.2	425.2	425.2	425.2

(END OF REPORT)