

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: P333263-940

Luminaire Tested: **S125DIP-S1090D590U940-4F0-1E-UDD-D1**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P333263-940
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-S1090D590U940-4F0-1E-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: 5628.5 lumens
Efficiency: N/A
Efficacy: 115.3 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

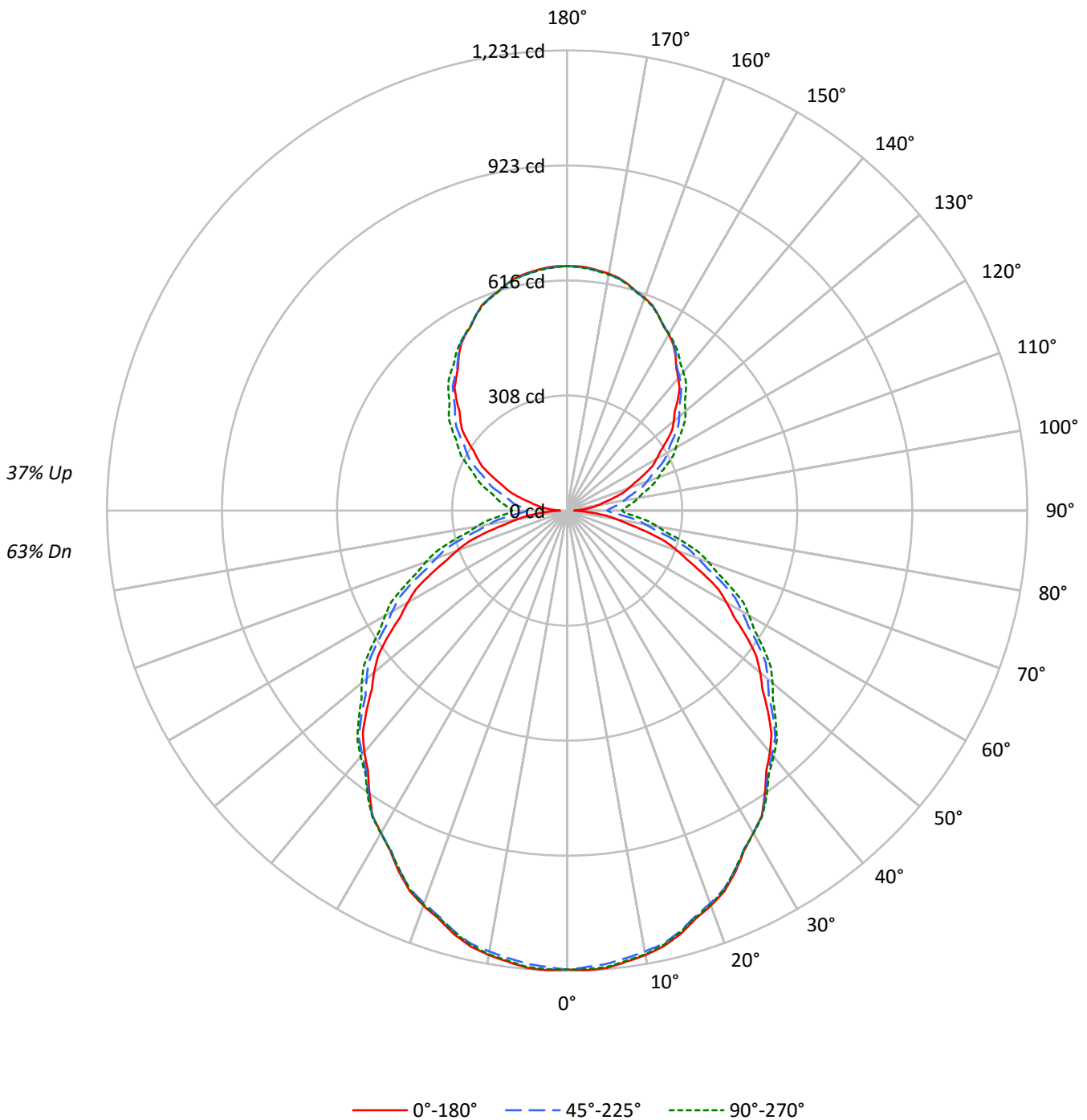
Input Watts (W): 48.8
Input Voltage (V): 120
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	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	2.1
10°-20°	329.6	5.9
20°-30°	490.2	8.7
30°-40°	580.6	10.3
40°-50°	600.3	10.7
50°-60°	553.0	9.8
60°-70°	447.0	7.9
70°-80°	299.4	5.3
80°-90°	156.7	2.8
90°-100°	130.9	2.3
100°-110°	193.5	3.4
110°-120°	262.0	4.7
120°-130°	312.6	5.6
130°-140°	333.6	5.9
140°-150°	318.7	5.7
150°-160°	265.8	4.7
160°-170°	176.7	3.1
170°-180°	61.8	1.1
0°-30°	935.9	16.6
0°-40°	1516.5	26.9
0°-60°	2669.7	47.4
0°-90°	3572.8	63.5
90°-120°	586.4	10.4
90°-150°	1551.3	27.6
90°-180°	2056.0	36.5
0°-180°	5628.5	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	62	107	136	147	15
95°	49	82	127	156	167	48
105°	127	150	188	214	225	135
115°	226	238	269	290	297	224
125°	325	328	351	369	375	291
135°	418	421	429	444	449	323
145°	505	506	508	514	517	316
155°	577	577	577	579	577	266
165°	627	626	627	628	626	177
175°	652	650	650	653	650	62
180°	654	654	654	654	654	



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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	46.4	55.1	63.8	72.6	81.6	90.9	100.1	109.4	118.6	124.9
90°	19.8	29.2	38.7	48.2	57.6	67.3	77.2	87.1	96.9	106.8	113.6
92.5°	29.6	38.2	46.7	55.3	63.8	73.3	83.6	93.8	104.2	114.4	121.1
95°	48.7	55.9	63.0	70.3	77.4	86.1	96.4	106.6	116.8	127.1	133.8
97.5°	69.1	75.5	81.9	88.2	94.5	102.9	113.2	123.6	133.8	144.2	150.6
100°	84.4	90.1	95.7	101.3	106.9	114.8	124.8	134.8	144.8	154.9	161.5
102.5°	101.0	106.6	112.3	117.9	123.6	130.9	140.0	149.1	158.2	167.3	173.8
105°	126.8	131.7	136.5	141.3	146.2	152.9	161.7	170.4	179.1	187.8	193.9
107.5°	155.5	159.7	163.9	168.1	172.3	178.5	186.7	194.9	203.2	211.4	217.0
110°	175.3	179.1	182.8	186.6	190.4	196.2	204.0	211.9	219.6	227.5	232.9



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CANDELA DISTRIBUTION (continued):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	196.4	199.3	202.2	205.0	207.9	213.2	220.9	228.5	236.3	244.0	249.1
115°	226.5	228.8	231.1	233.4	235.8	240.5	247.7	254.9	262.1	269.2	273.9
117.5°	256.6	258.1	259.5	260.9	262.3	266.4	273.2	280.0	286.8	293.6	298.2
120°	276.2	277.5	278.8	280.3	281.6	285.4	291.7	297.9	304.3	310.5	315.0
122.5°	296.3	296.9	297.5	298.1	298.6	302.0	308.3	314.5	320.7	327.0	331.3
125°	324.8	325.2	325.6	326.0	326.5	329.4	334.8	340.3	345.7	351.2	355.3
127.5°	354.1	354.2	354.4	354.5	354.5	356.9	361.4	366.0	370.4	375.0	378.8
130°	372.4	372.7	373.0	373.3	373.6	375.8	379.7	383.7	387.6	391.6	395.3
132.5°	389.8	390.7	391.6	392.4	393.2	395.1	398.0	400.8	403.7	406.5	410.1
135°	418.5	418.9	419.4	419.7	420.2	421.3	423.4	425.3	427.3	429.3	432.7
137.5°	445.6	445.9	446.4	446.8	447.3	448.1	449.2	450.4	451.6	452.7	456.0
140°	462.1	462.6	463.2	463.8	464.3	464.9	465.6	466.2	466.7	467.3	470.6
142.5°	479.6	479.8	480.1	480.4	480.6	481.0	481.5	482.0	482.4	483.0	485.5
145°	505.3	505.5	505.7	505.9	506.0	506.3	506.7	507.0	507.4	507.7	509.0
147.5°	527.9	528.2	528.4	528.7	529.0	529.1	529.4	529.8	530.0	530.3	530.9
150°	543.8	543.7	543.6	543.5	543.3	543.5	543.9	544.4	544.8	545.3	545.3
152.5°	556.8	557.0	557.1	557.3	557.4	557.6	557.8	557.9	558.1	558.4	558.7
155°	576.8	576.8	576.8	576.8	576.8	576.9	577.0	577.1	577.3	577.4	577.8
157.5°	594.8	594.5	594.2	594.1	593.8	593.7	593.8	594.0	594.1	594.1	594.6
160°	605.4	605.0	604.7	604.3	604.0	603.9	604.0	604.1	604.2	604.3	604.8
162.5°	614.7	614.5	614.2	613.9	613.7	613.6	613.6	613.7	613.7	613.7	614.2
165°	627.2	627.0	626.8	626.5	626.3	626.2	626.3	626.5	626.6	626.7	627.1
167.5°	637.8	637.4	636.9	636.4	636.0	635.8	635.8	635.8	635.8	635.8	636.4
170°	643.5	643.0	642.6	642.1	641.7	641.5	641.5	641.5	641.5	641.5	642.1
172.5°	647.6	647.1	646.7	646.2	645.8	645.5	645.5	645.5	645.5	645.5	646.2
175°	652.1	651.7	651.2	650.8	650.3	650.1	650.1	650.1	650.1	650.1	650.8
177.5°	654.5	654.2	653.8	653.4	653.0	652.8	652.7	652.6	652.6	652.5	653.0
180°	653.7	653.7	653.7	653.7	653.7	653.7	653.7	653.7	653.7	653.7	653.7



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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°	131.2	137.4	143.7	147.8	149.7	151.7	153.6	155.6
90°	120.3	127.0	133.8	138.2	140.4	142.6	144.8	147.0
92.5°	127.8	134.5	141.2	145.5	147.7	149.8	151.9	154.0
95°	140.4	147.0	153.7	158.1	160.2	162.4	164.4	166.6
97.5°	156.9	163.3	169.7	173.8	175.8	177.7	179.7	181.6
100°	168.2	174.8	181.4	185.7	187.4	189.3	191.2	193.0
102.5°	180.3	186.8	193.3	197.6	199.5	201.4	203.3	205.3
105°	199.8	205.9	211.9	216.1	218.2	220.4	222.7	224.9
107.5°	222.7	228.3	234.0	237.6	239.2	240.9	242.5	244.2
110°	238.4	243.8	249.1	252.8	254.5	256.3	258.1	259.8



TEST NUMBER: P333263-940

CATALOG NUMBER: S125DIP-S1090D590U940-4F0-1E-UDD-D1

CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
112.5°	254.0	259.0	264.1	267.4	269.1	270.8	272.4	274.1
115°	278.7	283.4	288.0	291.1	292.7	294.2	295.6	297.1
117.5°	302.8	307.5	312.1	315.1	316.5	317.9	319.2	320.6
120°	319.6	324.1	328.7	331.5	332.7	333.9	335.0	336.2
122.5°	335.5	339.7	343.9	346.7	347.9	349.2	350.4	351.7
125°	359.4	363.4	367.5	370.1	371.3	372.6	373.7	375.0
127.5°	382.6	386.6	390.4	393.0	394.3	395.6	396.9	398.2
130°	398.9	402.5	406.2	408.5	409.7	410.7	411.9	413.0
132.5°	413.8	417.4	421.1	423.2	424.0	424.9	425.7	426.5
135°	436.2	439.7	443.2	445.4	446.3	447.2	448.1	449.0
137.5°	459.3	462.6	465.9	467.8	468.3	468.9	469.3	469.8
140°	473.7	476.9	480.0	481.9	482.4	482.9	483.4	483.8
142.5°	488.2	490.9	493.6	495.1	495.6	496.1	496.6	497.1
145°	510.3	511.7	513.0	514.1	514.8	515.5	516.3	517.0
147.5°	531.6	532.4	533.1	533.2	533.0	532.7	532.4	532.1
150°	545.3	545.3	545.3	545.4	545.4	545.5	545.5	545.5
152.5°	558.9	559.2	559.5	559.4	559.0	558.7	558.3	557.9
155°	578.3	578.7	579.2	579.2	578.5	578.0	577.4	576.8
157.5°	595.0	595.5	595.9	595.8	595.0	594.3	593.6	592.8
160°	605.2	605.6	606.1	606.1	605.6	604.9	604.4	603.9
162.5°	614.7	615.3	615.9	615.8	615.2	614.5	613.9	613.1
165°	627.6	628.0	628.6	628.4	627.8	627.1	626.3	625.7
167.5°	637.1	637.8	638.5	638.5	637.8	637.0	636.3	635.7
170°	642.8	643.5	644.2	644.1	643.4	642.6	641.8	641.0
172.5°	646.9	647.6	648.3	648.3	647.6	646.8	646.1	645.4
175°	651.5	652.1	652.8	652.7	652.0	651.2	650.4	649.6
177.5°	653.5	654.1	654.6	654.6	654.0	653.4	652.6	652.0
180°	653.7	653.7	653.7	653.7	653.7	653.7	653.7	653.7

(END OF REPORT)