

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: P333263-930

Luminaire Tested: **S125DIP-S1090D590U930-4F0-1E-UDD-D1**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P333263-930
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-S1090D590U930-4F0-1E-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: 5146.2 lumens
Efficiency: N/A
Efficacy: 105.5 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

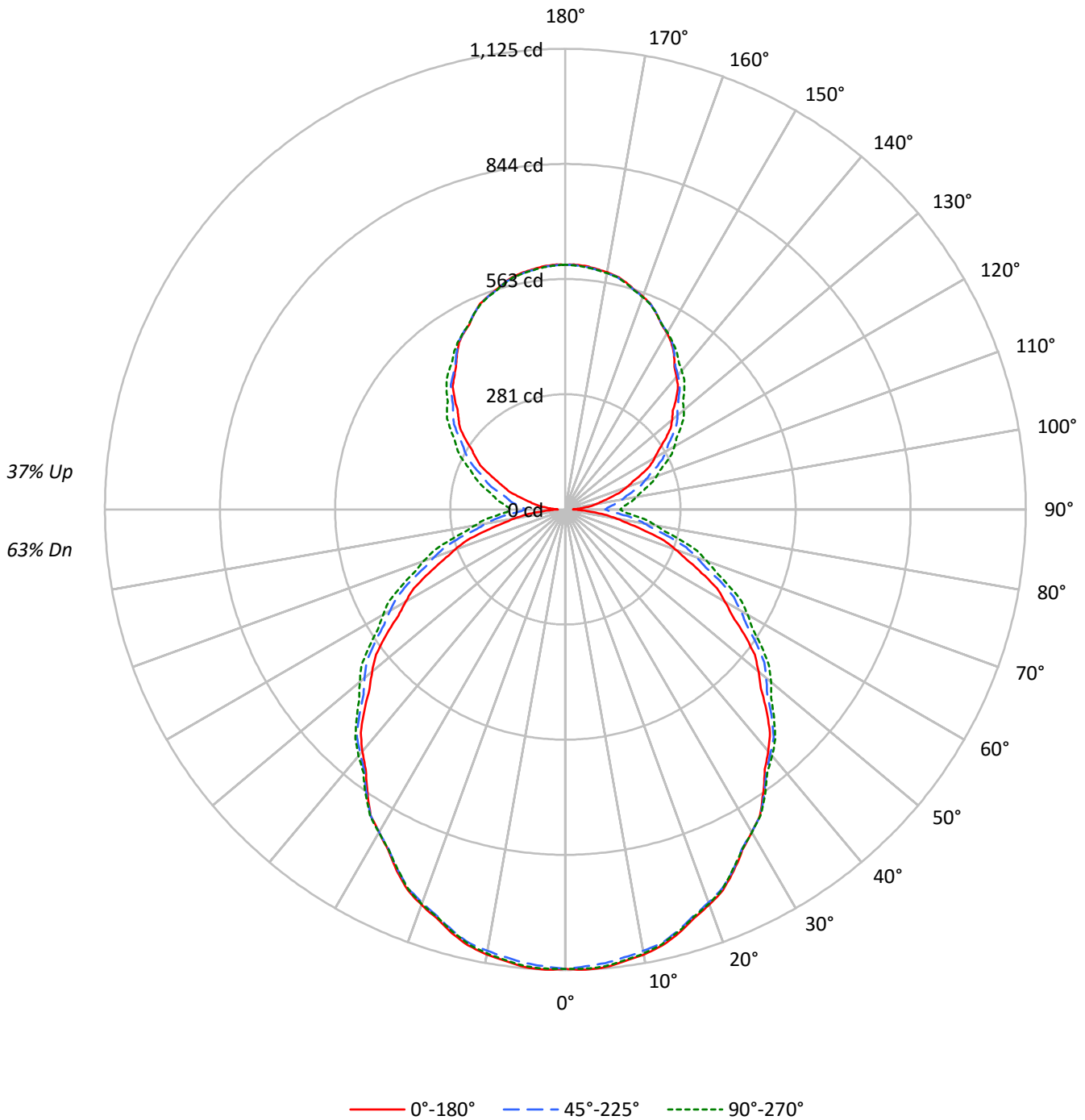
Input Watts (W): 48.8
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Luminous Intensity Polar Plot





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COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:

RF	20									20									20									20									20
RC	80									50									30									10									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	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°	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	2.1
10°-20°	301.3	5.9
20°-30°	448.2	8.7
30°-40°	530.9	10.3
40°-50°	548.9	10.7
50°-60°	505.6	9.8
60°-70°	408.7	7.9
70°-80°	273.7	5.3
80°-90°	143.2	2.8
90°-100°	119.7	2.3
100°-110°	176.9	3.4
110°-120°	239.6	4.7
120°-130°	285.8	5.6
130°-140°	305.0	5.9
140°-150°	291.4	5.7
150°-160°	243.1	4.7
160°-170°	161.6	3.1
170°-180°	56.5	1.1
0°-30°	855.7	16.6
0°-40°	1386.5	26.9
0°-60°	2441.0	47.4
0°-90°	3266.6	63.5
90°-120°	536.2	10.4
90°-150°	1418.4	27.6
90°-180°	1880.0	36.5
0°-180°	5146.2	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°	44	75	116	143	152	43
105°	116	137	172	196	206	124
115°	207	218	246	265	272	205
125°	297	300	321	337	343	266
135°	383	385	392	406	410	295
145°	462	463	464	470	473	288
155°	527	527	528	530	527	243
165°	574	573	573	575	572	162
175°	596	594	594	597	594	57
180°	598	598	598	598	598	



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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°	27.1	34.9	42.7	50.5	58.4	67.0	76.4	85.8	95.2	104.6	110.7
95°	44.5	51.1	57.6	64.2	70.8	78.8	88.1	97.4	106.8	116.2	122.3
97.5°	63.2	69.1	74.8	80.6	86.4	94.1	103.5	113.0	122.4	131.8	137.7
100°	77.2	82.3	87.5	92.6	97.8	104.9	114.1	123.3	132.4	141.6	147.7
102.5°	92.4	97.5	102.6	107.8	113.0	119.7	128.0	136.3	144.6	153.0	158.9
105°	115.9	120.4	124.8	129.2	133.7	139.8	147.8	155.8	163.7	171.7	177.2
107.5°	142.2	146.0	149.9	153.7	157.5	163.2	170.7	178.2	185.8	193.3	198.4
110°	160.3	163.7	167.1	170.6	174.1	179.4	186.5	193.7	200.8	208.0	213.0



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CANDELA DISTRIBUTION (continued):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	179.6	182.2	184.8	187.4	190.0	194.9	201.9	209.0	216.1	223.1	227.7
115°	207.1	209.2	211.3	213.4	215.6	219.9	226.5	233.0	239.6	246.1	250.5
117.5°	234.6	235.9	237.3	238.6	239.9	243.6	249.8	256.0	262.2	268.4	272.6
120°	252.5	253.7	254.9	256.2	257.5	261.0	266.7	272.4	278.2	283.9	288.0
122.5°	270.9	271.5	272.0	272.6	273.0	276.1	281.8	287.6	293.3	299.0	302.9
125°	296.9	297.3	297.7	298.1	298.5	301.2	306.1	311.1	316.1	321.1	324.8
127.5°	323.8	323.8	324.0	324.1	324.2	326.3	330.4	334.6	338.7	342.8	346.3
130°	340.5	340.8	341.0	341.3	341.6	343.6	347.2	350.8	354.4	358.1	361.4
132.5°	356.4	357.2	358.0	358.7	359.5	361.3	363.9	366.5	369.1	371.7	375.0
135°	382.6	383.0	383.4	383.8	384.2	385.2	387.1	388.9	390.7	392.5	395.7
137.5°	407.4	407.7	408.1	408.5	409.0	409.7	410.7	411.8	412.9	413.9	416.9
140°	422.5	423.0	423.5	424.0	424.5	425.1	425.7	426.2	426.7	427.3	430.2
142.5°	438.5	438.7	439.0	439.2	439.4	439.8	440.3	440.7	441.1	441.6	443.9
145°	462.0	462.2	462.4	462.5	462.7	462.9	463.3	463.6	463.9	464.1	465.4
147.5°	482.7	482.9	483.1	483.4	483.6	483.8	484.0	484.4	484.6	484.9	485.4
150°	497.2	497.1	497.0	496.9	496.8	496.9	497.3	497.7	498.1	498.6	498.6
152.5°	509.1	509.2	509.4	509.6	509.6	509.8	510.0	510.1	510.3	510.5	510.8
155°	527.4	527.4	527.4	527.4	527.4	527.5	527.6	527.7	527.8	527.9	528.3
157.5°	543.8	543.6	543.3	543.2	542.9	542.8	542.9	543.1	543.2	543.2	543.6
160°	553.5	553.2	552.9	552.5	552.2	552.1	552.2	552.4	552.4	552.5	552.9
162.5°	562.1	561.8	561.6	561.3	561.1	561.0	561.0	561.1	561.1	561.1	561.6
165°	573.5	573.2	573.1	572.8	572.7	572.6	572.7	572.8	572.9	573.0	573.4
167.5°	583.2	582.8	582.3	581.9	581.5	581.3	581.3	581.3	581.3	581.3	581.9
170°	588.3	587.9	587.5	587.1	586.7	586.5	586.5	586.5	586.5	586.5	587.1
172.5°	592.1	591.7	591.3	590.8	590.4	590.2	590.2	590.2	590.2	590.2	590.8
175°	596.2	595.8	595.4	595.0	594.6	594.4	594.4	594.4	594.4	594.4	595.0
177.5°	598.4	598.1	597.8	597.5	597.0	596.9	596.8	596.7	596.6	596.6	597.0
180°	597.7	597.7	597.7	597.7	597.7	597.7	597.7	597.7	597.7	597.7	597.7



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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°	119.9	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°	116.8	122.9	129.1	133.1	135.0	137.0	138.8	140.8
95°	128.3	134.4	140.6	144.6	146.5	148.5	150.3	152.3
97.5°	143.5	149.3	155.2	158.9	160.7	162.5	164.3	166.1
100°	153.8	159.8	165.8	169.7	171.4	173.1	174.8	176.4
102.5°	164.9	170.8	176.8	180.7	182.4	184.2	185.9	187.7
105°	182.7	188.3	193.7	197.5	199.5	201.5	203.6	205.6
107.5°	203.6	208.7	213.9	217.2	218.7	220.2	221.7	223.2
110°	217.9	222.9	227.8	231.1	232.7	234.3	235.9	237.6



TEST NUMBER: P333263-930

CATALOG NUMBER: S125DIP-S1090D590U930-4F0-1E-UDD-D1

CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
112.5°	232.3	236.8	241.5	244.5	246.1	247.6	249.1	250.6
115°	254.8	259.1	263.3	266.2	267.6	269.0	270.3	271.7
117.5°	276.9	281.1	285.4	288.1	289.3	290.7	291.9	293.1
120°	292.2	296.4	300.5	303.1	304.2	305.2	306.3	307.4
122.5°	306.7	310.6	314.5	317.0	318.1	319.3	320.4	321.6
125°	328.6	332.2	336.0	338.3	339.5	340.6	341.7	342.8
127.5°	349.8	353.4	356.9	359.3	360.5	361.7	362.9	364.1
130°	364.7	368.0	371.4	373.5	374.5	375.5	376.6	377.6
132.5°	378.3	381.6	385.0	386.9	387.7	388.5	389.2	390.0
135°	398.8	402.0	405.2	407.2	408.1	408.9	409.7	410.5
137.5°	420.0	423.0	426.0	427.7	428.2	428.7	429.1	429.6
140°	433.1	436.0	438.9	440.6	441.1	441.5	442.0	442.4
142.5°	446.4	448.8	451.3	452.7	453.1	453.6	454.0	454.5
145°	466.6	467.8	469.0	470.0	470.7	471.3	472.1	472.7
147.5°	486.1	486.7	487.4	487.5	487.3	487.1	486.8	486.5
150°	498.6	498.6	498.6	498.6	498.6	498.7	498.7	498.8
152.5°	511.0	511.3	511.5	511.4	511.1	510.8	510.5	510.1
155°	528.7	529.1	529.5	529.5	529.0	528.5	527.9	527.4
157.5°	544.0	544.5	544.9	544.8	544.0	543.4	542.7	542.0
160°	553.3	553.8	554.2	554.2	553.7	553.1	552.6	552.1
162.5°	562.1	562.6	563.1	563.0	562.5	561.8	561.3	560.6
165°	573.8	574.2	574.7	574.5	574.0	573.3	572.7	572.1
167.5°	582.5	583.2	583.8	583.8	583.1	582.4	581.8	581.2
170°	587.7	588.3	589.0	588.9	588.2	587.5	586.8	586.0
172.5°	591.5	592.1	592.7	592.7	592.1	591.4	590.8	590.1
175°	595.7	596.2	596.9	596.8	596.1	595.4	594.7	593.9
177.5°	597.5	598.0	598.5	598.5	597.9	597.4	596.7	596.1
180°	597.7	597.7	597.7	597.7	597.7	597.7	597.7	597.7

(END OF REPORT)