

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: P333264-935

Luminaire Tested: **S125DIP-S1090D590U935-4F0-1E-UDD-D4**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P333264-935
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1807-864-19,
Test Lab: INNOVATION CENTER
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: NEO-RAY
Catalog Number: S125DIP-S1090D590U935-4F0-1E-UDD-D4
Description: DEFINE 5 DIRECT-INDIRECT PENDANT LED LUMINAIRE
DOWNLIGHT 1090 LUMENS PER FOOT, DROP SATIN WHITE DIFFUSER
UPLIGHT 590 LUMENS PER FOOT, BATWING OPTIC
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 5500.2 lumens
Efficiency: N/A
Efficacy: 112.7 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

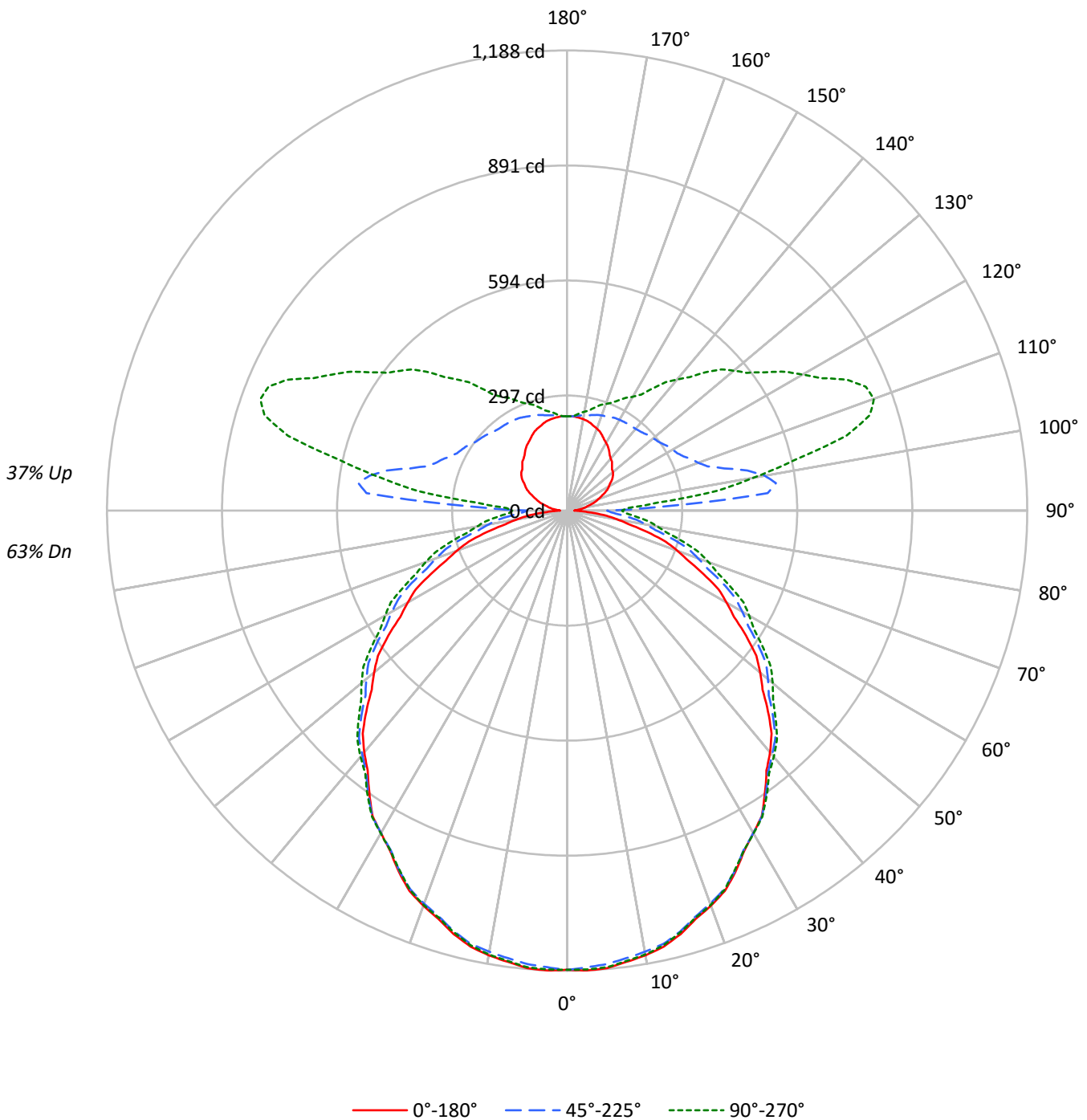
Input Watts (W): 48.8
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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				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	103	103	103	103	90	90	90	79	79	79	68	68	68	63
1	100	95	91	87	93	89	85	82	78	75	72	68	66	64	58	57	55	51
2	90	82	76	70	84	77	71	66	68	63	59	59	56	52	51	48	46	42
3	82	72	64	58	77	68	61	55	60	54	49	52	48	44	45	42	39	35
4	75	64	55	49	70	60	52	47	53	47	42	46	41	37	40	36	33	30
5	69	57	48	42	64	53	46	40	47	41	36	41	36	32	36	32	29	26
6	64	51	42	36	59	48	40	35	42	36	31	37	32	28	32	28	25	22
7	59	46	38	32	55	43	36	30	38	32	28	34	29	25	30	26	22	20
8	55	42	34	28	51	39	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	26	22	18	23	19	16	14

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	7657	7657	7657
5°	7672	7516	7539
10°	7617	7381	7370
15°	7527	7221	7155
20°	7405	7022	6940
25°	7259	6810	6675
30°	7083	6575	6434
35°	6919	6361	6214
40°	6751	6134	5991
45°	6562	5941	5794
50°	6381	5731	5621
55°	6164	5532	5416
60°	5927	5306	5207
65°	5679	5069	4972
70°	5397	4745	4731
75°	4952	4435	4434
80°	4367	4057	4111
85°	3824	3802	4009



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	112.1	2.0
10°-20°	318.2	5.8
20°-30°	473.3	8.6
30°-40°	560.6	10.2
40°-50°	579.6	10.5
50°-60°	533.9	9.7
60°-70°	431.6	7.8
70°-80°	289.0	5.3
80°-90°	151.2	2.7
90°-100°	260.7	4.7
100°-110°	441.6	8.0
110°-120°	397.8	7.2
120°-130°	312.3	5.7
130°-140°	242.0	4.4
140°-150°	176.9	3.2
150°-160°	123.1	2.2
160°-170°	72.5	1.3
170°-180°	23.6	0.4
0°-30°	903.6	16.4
0°-40°	1464.2	26.6
0°-60°	2577.8	46.9
0°-90°	3449.7	62.7
90°-120°	1100.1	20.0
90°-150°	1831.3	33.3
90°-180°	2051.0	37.3
0°-180°	5500.2	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1186	1186	1186	1186	1186	
5°	1186	1183	1175	1184	1183	112
15°	1132	1133	1125	1132	1128	319
25°	1029	1032	1025	1029	1024	473
35°	890	898	895	898	898	557
45°	733	746	752	760	761	566
55°	564	582	601	613	618	504
65°	388	415	443	460	465	385
75°	214	244	281	304	310	227
85°	64	102	143	168	178	68
90°	19	60	103	131	142	13
95°	31	94	520	307	234	29
105°	66	108	420	787	746	70
115°	106	136	331	682	798	105
125°	142	166	301	535	622	126
135°	163	195	281	435	505	127
145°	189	215	273	346	385	118
155°	214	230	266	301	314	99
165°	234	240	255	271	275	66
175°	243	243	245	248	247	23
180°	244	244	244	244	244	



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CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	1185.6	1185.6	1185.6	1185.6	1185.6	1185.6	1185.6	1185.6	1185.6	1185.6	1185.6
2.5°	1188.4	1187.9	1187.5	1187.1	1186.7	1185.8	1184.3	1182.8	1181.5	1180.0	1181.5
5°	1185.6	1185.1	1184.6	1184.0	1183.5	1182.3	1180.5	1178.7	1176.9	1175.1	1177.2
7.5°	1175.1	1174.9	1174.7	1174.5	1174.3	1173.3	1171.4	1169.5	1167.7	1165.8	1167.6
10°	1165.8	1165.8	1165.8	1165.8	1165.8	1164.8	1162.7	1160.6	1158.6	1156.5	1158.3
12.5°	1152.8	1153.0	1153.2	1153.4	1153.7	1152.9	1151.2	1149.6	1148.0	1146.2	1147.7
15°	1132.1	1132.4	1132.6	1132.9	1133.2	1132.4	1130.6	1128.8	1127.0	1125.2	1126.7
17.5°	1105.1	1105.6	1106.1	1106.6	1107.2	1106.6	1104.7	1102.9	1101.1	1099.3	1100.5
20°	1085.6	1086.2	1086.7	1087.2	1087.7	1087.0	1085.2	1083.4	1081.6	1079.8	1080.6
22.5°	1063.2	1064.2	1065.1	1066.1	1067.0	1066.4	1064.5	1062.5	1060.4	1058.4	1059.4
25°	1028.6	1029.4	1030.2	1031.0	1031.7	1031.4	1029.8	1028.3	1026.7	1025.2	1026.2
27.5°	990.1	991.2	992.3	993.5	994.6	994.3	992.6	990.8	989.0	987.3	988.0
30°	961.2	962.8	964.3	965.9	967.4	967.4	965.9	964.3	962.8	961.2	961.7
32.5°	935.2	936.5	937.9	939.3	940.6	940.6	939.5	938.4	937.3	936.2	936.7
35°	890.4	892.2	894.0	895.8	897.6	898.1	897.3	896.6	895.8	895.0	895.8
37.5°	845.5	847.1	848.8	850.4	852.0	852.8	852.6	852.3	852.0	851.8	852.8
40°	814.8	816.8	818.9	821.0	823.0	824.0	823.7	823.5	823.2	822.9	824.0
42.5°	781.3	784.0	786.7	789.4	792.0	793.7	794.3	794.8	795.4	796.0	797.2
45°	733.4	736.2	739.1	741.9	744.8	746.8	748.1	749.4	750.7	752.0	753.8
47.5°	684.4	687.0	689.7	692.2	694.9	697.3	699.6	701.8	704.0	706.2	708.9
50°	650.9	653.8	656.6	659.4	662.3	665.1	668.0	670.8	673.6	676.5	679.3
52.5°	615.5	619.1	622.5	625.9	629.4	632.8	636.4	639.8	643.3	646.7	649.8
55°	563.7	567.8	572.0	576.1	580.2	584.4	588.5	592.6	596.8	600.9	603.7
57.5°	510.7	515.7	520.6	525.6	530.5	535.5	540.2	544.9	549.7	554.4	557.7
60°	475.4	480.5	485.7	490.9	496.0	501.2	506.4	511.5	516.7	521.9	525.7
62.5°	441.0	446.2	451.3	456.5	461.7	467.0	472.6	478.2	483.8	489.3	493.6
65°	388.2	394.2	400.1	406.0	412.0	418.0	424.2	430.4	436.6	442.8	446.7
67.5°	338.5	344.2	349.9	355.7	361.4	367.4	373.8	380.0	386.3	392.6	397.4
70°	302.2	308.2	314.1	320.0	326.0	332.3	339.0	345.7	352.4	359.1	364.0
72.5°	266.9	273.0	279.1	285.3	291.4	298.2	305.6	312.9	320.2	327.5	332.9
75°	213.9	220.6	227.3	234.0	240.7	248.2	256.5	264.8	273.0	281.3	286.5
77.5°	163.0	170.7	178.5	186.2	194.0	201.8	209.7	217.7	225.7	233.6	239.3
80°	131.3	139.1	146.8	154.5	162.3	170.6	179.3	188.1	196.9	205.7	211.4
82.5°	102.5	110.6	118.8	127.0	135.2	143.7	152.7	161.7	170.7	179.7	185.2
85°	63.9	72.4	80.9	89.5	98.0	106.8	115.8	124.8	133.9	142.9	148.6
87.5°	36.3	44.7	53.2	61.6	70.1	78.9	87.7	96.7	105.6	114.5	120.6
90°	19.1	27.8	37.1	46.3	55.6	65.1	74.4	84.1	93.4	103.1	109.6
92.5°	22.7	31.7	43.4	57.2	73.3	95.9	131.7	185.7	243.5	249.9	225.5
95°	31.3	38.5	49.2	61.3	78.8	108.7	170.0	286.8	431.2	520.0	516.3
97.5°	40.6	47.3	56.1	67.5	83.3	106.4	149.7	237.3	387.6	543.7	623.3
100°	47.2	53.6	61.0	71.8	86.5	108.1	144.9	217.0	349.0	517.9	646.1
102.5°	54.5	60.1	66.6	77.5	91.0	111.9	145.3	207.0	319.6	476.8	625.7
105°	66.0	70.1	76.7	85.8	97.7	117.4	146.8	198.2	288.0	420.0	566.1
107.5°	77.1	81.6	87.5	95.1	106.7	124.6	152.9	197.8	272.1	380.0	506.7
110°	85.2	89.3	94.4	101.9	112.4	130.4	157.6	198.8	265.4	360.2	472.1



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CANDELA DISTRIBUTION (continued):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	94.3	97.7	101.8	108.7	118.6	135.7	162.0	201.0	261.9	347.0	445.4
115°	106.2	109.0	112.3	118.5	127.7	144.2	169.1	204.3	258.1	331.1	414.9
117.5°	116.8	119.5	122.3	127.9	137.4	153.0	176.6	208.9	256.1	320.6	394.3
120°	124.7	126.9	129.7	134.8	144.0	159.6	182.7	212.2	256.0	314.5	382.3
122.5°	132.0	133.5	135.3	140.2	149.6	165.0	187.9	216.0	255.3	308.8	371.3
125°	142.2	142.9	145.1	149.2	158.3	173.6	194.9	221.2	254.9	300.7	356.0
127.5°	149.1	150.4	153.3	158.6	168.2	183.0	202.9	226.5	255.6	294.3	341.5
130°	154.3	155.5	159.1	165.3	175.3	189.8	208.6	230.9	256.7	290.7	332.6
132.5°	157.3	159.1	163.8	170.8	181.5	195.6	213.7	233.9	257.3	287.0	324.2
135°	163.4	165.1	170.7	178.4	188.4	202.4	219.5	237.5	257.4	281.4	312.7
137.5°	171.3	172.5	177.8	185.5	195.4	209.4	224.1	240.5	258.6	277.8	303.2
140°	175.0	176.5	182.4	190.3	199.6	213.0	227.5	242.5	258.5	275.4	297.9
142.5°	180.6	181.4	186.7	194.3	203.1	215.5	229.0	243.0	258.0	274.0	293.7
145°	188.8	189.5	194.2	200.8	209.4	220.5	233.3	245.6	258.8	273.1	289.1
147.5°	196.2	196.8	201.0	207.4	215.1	225.1	236.3	247.4	259.3	271.8	285.2
150°	201.4	202.3	205.8	212.2	219.0	227.4	238.2	248.5	259.3	270.6	282.4
152.5°	206.9	207.4	210.5	216.1	222.6	230.1	240.1	249.3	258.9	269.1	279.7
155°	214.1	214.1	217.1	222.0	226.9	233.8	242.1	249.9	257.9	266.2	275.0
157.5°	220.6	220.5	222.9	227.1	231.4	236.6	243.8	250.5	256.6	263.2	270.7
160°	225.0	224.5	226.4	229.9	233.8	238.2	244.6	250.5	255.4	261.3	267.2
162.5°	228.5	228.0	230.0	233.0	236.2	239.8	245.4	250.1	254.3	258.9	264.1
165°	233.8	232.8	234.3	236.7	238.7	241.7	245.6	249.5	252.4	255.4	259.3
167.5°	237.3	236.9	237.7	239.1	240.5	242.3	245.6	248.3	249.7	251.9	254.7
170°	239.7	239.2	239.7	240.6	241.7	243.1	245.6	247.5	248.5	249.9	251.9
172.5°	241.3	240.4	240.8	241.9	242.5	243.1	245.2	246.8	246.9	247.6	249.2
175°	243.1	242.1	242.6	243.1	243.1	243.1	244.6	245.6	245.0	245.0	245.6
177.5°	244.0	243.2	243.2	243.6	243.2	243.2	244.0	244.4	243.6	243.6	244.0
180°	243.6	243.6	243.6	243.6	243.6	243.6	243.6	243.6	243.6	243.6	243.6



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CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
0°	1185.6	1185.6	1185.6	1185.6	1185.6	1185.6	1185.6	1185.6
2.5°	1182.8	1184.3	1185.8	1186.4	1186.2	1185.9	1185.8	1185.6
5°	1179.2	1181.3	1183.4	1184.3	1184.0	1183.8	1183.5	1183.3
7.5°	1169.4	1171.2	1173.0	1173.8	1173.5	1173.3	1173.0	1172.8
10°	1160.1	1161.9	1163.7	1164.5	1164.2	1164.0	1163.7	1163.5
12.5°	1149.1	1150.5	1151.8	1152.2	1151.6	1150.9	1150.2	1149.5
15°	1128.3	1129.8	1131.4	1131.6	1130.6	1129.5	1128.5	1127.5
17.5°	1101.7	1102.9	1104.1	1104.3	1103.7	1103.1	1102.5	1101.9
20°	1081.3	1082.1	1082.9	1083.3	1083.3	1083.3	1083.3	1083.3
22.5°	1060.4	1061.4	1062.3	1062.5	1061.9	1061.3	1060.7	1060.1
25°	1027.3	1028.3	1029.3	1029.2	1027.9	1026.6	1025.3	1024.0
27.5°	988.7	989.5	990.2	990.3	989.8	989.4	988.9	988.4
30°	962.3	962.8	963.3	963.5	963.2	962.9	962.7	962.4
32.5°	937.2	937.7	938.2	938.3	938.1	937.8	937.5	937.3
35°	896.6	897.3	898.1	898.5	898.5	898.5	898.5	898.5
37.5°	853.9	854.9	855.9	856.4	856.3	856.2	856.0	855.9
40°	825.0	826.0	827.1	827.9	828.4	828.9	829.4	829.9
42.5°	798.4	799.7	800.9	801.6	801.7	801.8	801.9	802.0
45°	755.6	757.4	759.2	760.3	760.5	760.8	761.0	761.3
47.5°	711.5	714.1	716.8	718.3	718.9	719.5	720.1	720.7
50°	682.2	685.0	687.9	689.7	690.4	691.2	692.0	692.8
52.5°	652.8	655.8	658.9	660.7	661.2	661.9	662.5	663.0
55°	606.6	609.4	612.3	614.2	615.3	616.3	617.3	618.4
57.5°	560.9	564.2	567.5	569.5	570.2	571.0	571.8	572.6
60°	529.6	533.5	537.4	539.7	540.4	541.2	542.0	542.8
62.5°	497.9	502.2	506.5	509.1	510.1	511.1	512.0	513.1
65°	450.6	454.4	458.3	460.8	461.8	462.9	463.9	464.9
67.5°	402.0	406.7	411.5	414.5	415.8	417.2	418.4	419.8
70°	368.9	373.8	378.8	382.0	383.6	385.1	386.7	388.2
72.5°	338.2	343.5	348.8	352.1	353.2	354.3	355.4	356.6
75°	291.6	296.8	302.0	305.1	306.4	307.7	309.0	310.3
77.5°	245.0	250.6	256.3	259.7	260.7	261.7	262.8	263.8
80°	217.1	222.7	228.4	231.8	232.8	233.8	234.9	235.9
82.5°	190.6	196.1	201.6	205.3	207.2	209.0	210.9	212.7
85°	154.3	160.0	165.7	169.5	171.6	173.7	175.7	177.8
87.5°	126.7	132.7	138.7	142.8	144.6	146.4	148.3	150.1
90°	116.1	122.4	128.9	133.7	135.5	137.3	139.7	141.5
92.5°	190.1	171.9	162.0	158.6	154.1	154.7	155.8	156.9
95°	449.4	380.4	325.6	288.2	255.1	242.1	240.0	233.9
97.5°	615.8	568.9	515.5	461.7	433.1	407.3	394.9	390.3
100°	689.3	670.7	625.5	577.9	545.6	511.8	495.2	488.9
102.5°	711.5	731.6	712.6	681.3	646.6	623.0	604.9	600.5
105°	689.1	761.6	788.4	786.4	772.6	758.2	750.2	746.1
107.5°	628.1	723.0	783.6	812.6	822.2	823.6	822.0	819.7
110°	583.1	681.3	755.4	800.6	824.5	835.6	840.9	842.7



TEST NUMBER: P333264-935

CATALOG NUMBER: S125DIP-S1090D590U935-4F0-1E-UDD-D4

CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
112.5°	546.7	640.1	714.8	767.2	801.3	819.2	829.6	834.9
115°	500.6	581.3	653.3	709.9	749.8	774.9	790.2	798.1
117.5°	468.4	538.4	600.7	652.9	692.9	719.1	734.5	740.2
120°	450.5	513.8	572.2	618.5	656.3	681.5	696.3	701.7
122.5°	435.8	494.6	546.9	590.2	624.1	647.3	662.1	667.2
125°	414.7	468.9	515.7	553.8	582.6	604.1	616.1	622.3
127.5°	393.0	443.6	487.2	523.0	549.5	568.8	580.5	584.1
130°	380.0	426.8	468.7	503.1	528.9	546.4	557.6	561.8
132.5°	366.4	410.5	448.8	482.0	507.6	524.9	535.0	539.4
135°	347.5	384.8	419.6	449.9	472.8	490.3	500.4	504.6
137.5°	331.9	362.4	391.6	417.3	437.7	453.5	462.7	467.0
140°	322.8	348.8	374.2	396.7	415.9	429.7	438.2	441.6
142.5°	315.0	337.0	358.9	378.5	394.9	406.8	414.8	417.9
145°	305.7	322.1	338.6	353.1	365.9	375.3	381.7	384.7
147.5°	297.6	310.4	322.4	332.9	342.7	349.8	353.4	354.8
150°	293.2	304.0	313.3	322.4	329.9	336.1	338.3	339.1
152.5°	289.3	298.9	307.5	314.4	320.6	325.4	327.4	328.0
155°	283.4	291.3	298.1	303.5	308.4	311.9	313.3	313.8
157.5°	277.5	284.0	289.3	293.5	297.3	300.1	301.5	301.4
160°	273.5	278.4	283.4	286.8	290.2	292.7	293.7	293.2
162.5°	269.2	273.8	277.8	280.9	283.6	285.7	285.9	285.8
165°	263.2	266.7	269.7	272.1	274.1	275.0	275.0	275.0
167.5°	257.5	259.8	262.1	263.8	264.8	265.7	265.3	265.2
170°	254.4	255.9	257.4	258.3	259.3	259.8	259.8	259.3
172.5°	250.9	252.4	253.4	254.0	254.3	255.1	254.3	253.8
175°	247.0	247.0	248.1	248.1	248.1	248.5	247.5	247.0
177.5°	244.4	244.8	244.8	244.8	244.4	244.8	243.6	243.6
180°	243.6	243.6	243.6	243.6	243.6	243.6	243.6	243.6

(END OF REPORT)