

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: P333264-927

Luminaire Tested: **S125DIP-S1090D590U927-4F0-1E-UDD-D4**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P333264-927
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-S1090D590U927-4F0-1E-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: 5060.6 lumens
Efficiency: N/A
Efficacy: 103.7 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

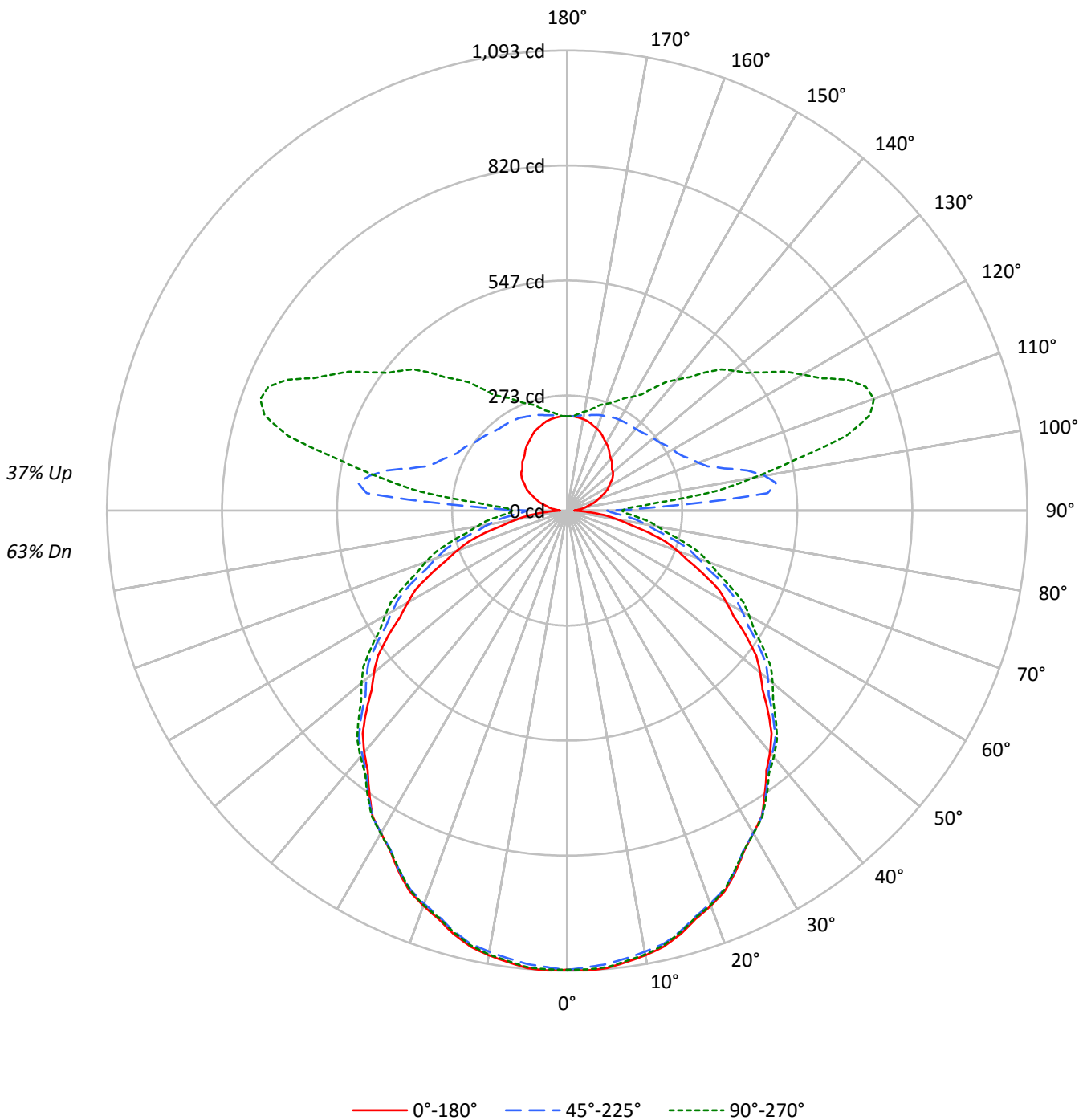
Input Watts (W): 48.8
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



TEST NUMBER: P333264-927

CATALOG NUMBER: S125DIP-S1090D590U927-4F0-1E-UDD-D4

Luminous Intensity Polar Plot





TEST NUMBER: P333264-927

CATALOG NUMBER: S125DIP-S1090D590U927-4F0-1E-UDD-D4

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°	7045	7045	7045
5°	7059	6915	6937
10°	7008	6791	6781
15°	6926	6644	6583
20°	6814	6461	6385
25°	6679	6266	6141
30°	6517	6050	5920
35°	6366	5853	5717
40°	6211	5644	5513
45°	6037	5466	5331
50°	5872	5272	5172
55°	5671	5090	4983
60°	5453	4881	4791
65°	5225	4664	4575
70°	4967	4366	4353
75°	4557	4080	4079
80°	4018	3734	3783
85°	3519	3499	3689



TEST NUMBER: P333264-927

CATALOG NUMBER: S125DIP-S1090D590U927-4F0-1E-UDD-D4

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	103.1	2.0
10°-20°	292.8	5.8
20°-30°	435.5	8.6
30°-40°	515.8	10.2
40°-50°	533.3	10.5
50°-60°	491.3	9.7
60°-70°	397.1	7.8
70°-80°	265.9	5.3
80°-90°	139.2	2.7
90°-100°	239.8	4.7
100°-110°	406.3	8.0
110°-120°	366.0	7.2
120°-130°	287.3	5.7
130°-140°	222.7	4.4
140°-150°	162.8	3.2
150°-160°	113.2	2.2
160°-170°	66.7	1.3
170°-180°	21.7	0.4
0°-30°	831.4	16.4
0°-40°	1347.2	26.6
0°-60°	2371.8	46.9
0°-90°	3174.0	62.7
90°-120°	1012.2	20.0
90°-150°	1685.0	33.3
90°-180°	1887.0	37.3
0°-180°	5060.6	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1091	1091	1091	1091	1091	
5°	1091	1088	1081	1089	1089	103
15°	1042	1042	1035	1041	1037	293
25°	946	949	943	947	942	435
35°	819	826	824	826	827	512
45°	675	686	692	699	700	521
55°	519	536	553	564	569	463
65°	357	382	407	423	428	354
75°	197	225	259	279	286	209
85°	59	94	132	154	164	63
90°	18	56	95	121	130	12
95°	29	86	478	282	215	27
105°	61	99	386	724	686	64
115°	98	125	305	627	734	96
125°	131	153	277	492	573	116
135°	150	180	259	400	464	117
145°	174	198	251	318	354	109
155°	197	212	245	277	289	91
165°	215	221	235	249	253	61
175°	224	224	226	228	227	21
180°	224	224	224	224	224	



TEST NUMBER: P333264-927

CATALOG NUMBER: S125DIP-S1090D590U927-4F0-1E-UDD-D4

CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	1090.8	1090.8	1090.8	1090.8	1090.8	1090.8	1090.8	1090.8	1090.8	1090.8	1090.8
2.5°	1093.4	1093.0	1092.6	1092.3	1091.9	1091.0	1089.6	1088.3	1087.0	1085.7	1087.0
5°	1090.8	1090.4	1089.9	1089.4	1088.9	1087.8	1086.2	1084.5	1082.8	1081.2	1083.1
7.5°	1081.2	1081.0	1080.8	1080.6	1080.5	1079.5	1077.8	1076.0	1074.4	1072.6	1074.3
10°	1072.6	1072.6	1072.6	1072.6	1072.6	1071.7	1069.8	1067.9	1066.0	1064.1	1065.7
12.5°	1060.7	1060.8	1061.0	1061.2	1061.4	1060.7	1059.2	1057.7	1056.2	1054.6	1056.0
15°	1041.6	1041.9	1042.1	1042.4	1042.6	1041.9	1040.2	1038.6	1036.9	1035.2	1036.6
17.5°	1016.8	1017.2	1017.7	1018.2	1018.7	1018.1	1016.4	1014.8	1013.1	1011.5	1012.6
20°	998.9	999.3	999.8	1000.3	1000.8	1000.1	998.5	996.8	995.1	993.5	994.2
22.5°	978.3	979.1	980.0	980.9	981.8	981.2	979.4	977.6	975.7	973.8	974.7
25°	946.4	947.1	947.8	948.6	949.3	949.0	947.5	946.1	944.7	943.3	944.2
27.5°	910.9	912.0	913.0	914.1	915.1	914.8	913.2	911.6	910.0	908.4	909.0
30°	884.4	885.8	887.2	888.7	890.1	890.1	888.7	887.2	885.8	884.4	884.9
32.5°	860.5	861.7	862.9	864.2	865.4	865.5	864.4	863.4	862.4	861.3	861.8
35°	819.2	820.9	822.5	824.2	825.9	826.3	825.6	824.9	824.2	823.5	824.2
37.5°	777.9	779.4	780.9	782.4	783.9	784.7	784.4	784.2	783.9	783.7	784.7
40°	749.6	751.5	753.4	755.3	757.2	758.1	757.9	757.6	757.4	757.2	758.1
42.5°	718.8	721.4	723.8	726.3	728.7	730.2	730.8	731.3	731.8	732.4	733.5
45°	674.8	677.4	680.0	682.6	685.2	687.1	688.3	689.5	690.7	691.9	693.6
47.5°	629.7	632.1	634.5	636.9	639.4	641.6	643.6	645.7	647.8	649.7	652.2
50°	598.9	601.5	604.1	606.7	609.3	612.0	614.6	617.2	619.8	622.4	625.0
52.5°	566.3	569.6	572.7	575.9	579.1	582.3	585.5	588.7	591.8	595.0	597.9
55°	518.6	522.4	526.2	530.0	533.9	537.7	541.5	545.3	549.1	552.9	555.5
57.5°	469.9	474.4	479.0	483.6	488.1	492.7	497.0	501.4	505.7	510.1	513.1
60°	437.4	442.1	446.9	451.6	456.4	461.1	465.9	470.6	475.4	480.1	483.7
62.5°	405.8	410.5	415.3	420.0	424.8	429.7	434.8	440.0	445.1	450.2	454.2
65°	357.2	362.7	368.1	373.6	379.1	384.6	390.3	396.0	401.7	407.4	411.0
67.5°	311.4	316.7	321.9	327.3	332.5	338.0	343.9	349.7	355.5	361.2	365.6
70°	278.1	283.5	289.0	294.5	299.9	305.7	311.9	318.1	324.2	330.4	334.9
72.5°	245.6	251.2	256.8	262.5	268.2	274.3	281.1	287.9	294.6	301.3	306.3
75°	196.8	203.0	209.1	215.3	221.5	228.4	236.0	243.6	251.2	258.8	263.6
77.5°	150.0	157.1	164.2	171.3	178.5	185.7	193.0	200.3	207.6	214.9	220.1
80°	120.8	127.9	135.1	142.2	149.3	156.9	165.0	173.1	181.2	189.3	194.5
82.5°	94.3	101.8	109.3	116.8	124.4	132.2	140.5	148.8	157.1	165.3	170.4
85°	58.8	66.6	74.5	82.3	90.2	98.2	106.5	114.9	123.2	131.5	136.7
87.5°	33.4	41.1	49.0	56.7	64.5	72.6	80.7	89.0	97.1	105.4	111.0
90°	17.6	25.6	34.1	42.6	51.2	59.9	68.4	77.4	86.0	94.9	100.8
92.5°	20.9	29.2	39.9	52.6	67.4	88.2	121.2	170.9	224.0	230.0	207.5
95°	28.8	35.4	45.2	56.4	72.5	100.0	156.4	263.9	396.7	478.4	475.1
97.5°	37.4	43.5	51.6	62.1	76.6	97.9	137.8	218.3	356.6	500.3	573.5
100°	43.4	49.3	56.1	66.1	79.6	99.5	133.3	199.6	321.2	476.5	594.5
102.5°	50.1	55.3	61.3	71.3	83.7	103.0	133.7	190.4	294.1	438.7	575.7
105°	60.7	64.5	70.6	78.9	89.9	108.1	135.1	182.4	265.0	386.4	520.9
107.5°	71.0	75.1	80.5	87.5	98.2	114.6	140.7	182.0	250.3	349.6	466.2
110°	78.4	82.1	86.8	93.8	103.4	119.9	145.0	182.9	244.2	331.4	434.4



TEST NUMBER: P333264-927

CATALOG NUMBER: S125DIP-S1090D590U927-4F0-1E-UDD-D4

CANDELA DISTRIBUTION (continued):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	86.7	89.9	93.6	100.0	109.1	124.8	149.1	184.9	241.0	319.2	409.8
115°	97.7	100.3	103.3	109.0	117.5	132.7	155.6	188.0	237.5	304.7	381.8
117.5°	107.5	110.0	112.5	117.6	126.4	140.8	162.5	192.2	235.7	294.9	362.7
120°	114.7	116.8	119.3	124.1	132.5	146.9	168.1	195.3	235.5	289.4	351.7
122.5°	121.4	122.8	124.5	129.0	137.7	151.8	172.9	198.8	234.9	284.2	341.6
125°	130.8	131.5	133.5	137.3	145.7	159.7	179.4	203.5	234.5	276.7	327.6
127.5°	137.2	138.4	141.0	145.9	154.8	168.4	186.6	208.4	235.2	270.8	314.2
130°	142.0	143.1	146.4	152.1	161.3	174.6	191.9	212.5	236.1	267.4	306.0
132.5°	144.7	146.4	150.7	157.2	167.0	180.0	196.6	215.2	236.7	264.0	298.3
135°	150.4	151.9	157.1	164.1	173.3	186.2	201.9	218.5	236.9	258.9	287.7
137.5°	157.6	158.8	163.6	170.6	179.7	192.7	206.2	221.3	238.0	255.6	279.0
140°	161.1	162.4	167.8	175.1	183.6	196.0	209.3	223.1	237.8	253.4	274.1
142.5°	166.1	166.9	171.7	178.8	186.9	198.3	210.7	223.6	237.3	252.1	270.2
145°	173.7	174.4	178.6	184.7	192.7	202.9	214.7	225.9	238.1	251.3	266.0
147.5°	180.5	181.1	185.0	190.8	197.9	207.1	217.4	227.6	238.6	250.1	262.4
150°	185.3	186.2	189.3	195.2	201.5	209.2	219.2	228.6	238.6	249.0	259.8
152.5°	190.4	190.8	193.7	198.8	204.8	211.8	220.9	229.3	238.2	247.6	257.3
155°	197.0	197.0	199.7	204.2	208.7	215.1	222.8	230.0	237.3	244.9	253.0
157.5°	203.0	202.9	205.1	209.0	212.9	217.7	224.3	230.4	236.1	242.2	249.1
160°	207.0	206.5	208.3	211.5	215.1	219.2	225.1	230.4	235.0	240.4	245.8
162.5°	210.2	209.8	211.6	214.4	217.3	220.6	225.8	230.1	233.9	238.2	243.0
165°	215.1	214.2	215.6	217.8	219.6	222.4	225.9	229.6	232.3	235.0	238.6
167.5°	218.3	217.9	218.7	220.0	221.3	222.9	225.9	228.5	229.7	231.8	234.3
170°	220.5	220.1	220.5	221.4	222.4	223.7	225.9	227.8	228.6	230.0	231.8
172.5°	222.0	221.2	221.6	222.5	223.1	223.7	225.6	227.0	227.2	227.8	229.3
175°	223.7	222.8	223.2	223.7	223.7	223.7	225.1	225.9	225.5	225.5	225.9
177.5°	224.5	223.8	223.8	224.1	223.8	223.8	224.5	224.8	224.1	224.1	224.5
180°	224.1	224.1	224.1	224.1	224.1	224.1	224.1	224.1	224.1	224.1	224.1



TEST NUMBER: P333264-927

CATALOG NUMBER: S125DIP-S1090D590U927-4F0-1E-UDD-D4

CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
0°	1090.8	1090.8	1090.8	1090.8	1090.8	1090.8	1090.8	1090.8
2.5°	1088.3	1089.6	1091.0	1091.5	1091.4	1091.2	1091.0	1090.8
5°	1085.0	1086.9	1088.8	1089.6	1089.4	1089.2	1088.9	1088.7
7.5°	1075.9	1077.6	1079.3	1080.0	1079.7	1079.5	1079.3	1079.0
10°	1067.4	1069.1	1070.7	1071.4	1071.2	1071.0	1070.7	1070.5
12.5°	1057.2	1058.5	1059.8	1060.1	1059.5	1058.9	1058.3	1057.6
15°	1038.1	1039.5	1040.9	1041.2	1040.2	1039.3	1038.3	1037.4
17.5°	1013.7	1014.7	1015.8	1016.1	1015.5	1014.9	1014.4	1013.8
20°	994.9	995.6	996.3	996.7	996.7	996.7	996.7	996.7
22.5°	975.7	976.5	977.4	977.6	977.0	976.4	975.9	975.3
25°	945.2	946.1	947.1	946.9	945.7	944.5	943.3	942.1
27.5°	909.7	910.4	911.0	911.2	910.7	910.3	909.8	909.4
30°	885.3	885.8	886.3	886.5	886.2	886.0	885.7	885.5
32.5°	862.3	862.8	863.2	863.3	863.1	862.8	862.6	862.4
35°	824.9	825.6	826.3	826.6	826.6	826.6	826.6	826.6
37.5°	785.6	786.6	787.5	787.9	787.8	787.7	787.6	787.5
40°	759.1	760.0	761.0	761.7	762.2	762.6	763.1	763.6
42.5°	734.6	735.8	736.9	737.5	737.6	737.7	737.8	737.9
45°	695.2	696.9	698.5	699.5	699.7	700.0	700.2	700.4
47.5°	654.7	657.0	659.5	660.9	661.5	662.0	662.5	663.1
50°	627.6	630.3	632.9	634.5	635.3	636.0	636.7	637.4
52.5°	600.6	603.4	606.3	607.9	608.4	609.0	609.5	610.0
55°	558.1	560.7	563.3	565.1	566.1	567.0	568.0	568.9
57.5°	516.1	519.1	522.1	523.9	524.7	525.4	526.1	526.8
60°	487.3	490.8	494.4	496.5	497.3	498.0	498.7	499.4
62.5°	458.1	462.1	466.0	468.4	469.4	470.2	471.1	472.1
65°	414.5	418.1	421.7	424.0	424.9	425.9	426.8	427.8
67.5°	369.9	374.2	378.6	381.4	382.5	383.8	385.0	386.3
70°	339.5	344.0	348.5	351.5	352.9	354.3	355.8	357.2
72.5°	311.2	316.1	320.9	323.9	325.0	326.0	327.0	328.1
75°	268.3	273.1	277.8	280.7	281.9	283.1	284.3	285.5
77.5°	225.4	230.6	235.8	238.9	239.9	240.8	241.8	242.7
80°	199.7	204.9	210.2	213.3	214.2	215.2	216.1	217.1
82.5°	175.4	180.5	185.4	188.9	190.6	192.3	194.0	195.7
85°	142.0	147.2	152.4	156.0	157.9	159.8	161.7	163.6
87.5°	116.5	122.1	127.6	131.3	133.0	134.7	136.4	138.1
90°	106.8	112.6	118.6	123.0	124.7	126.4	128.5	130.2
92.5°	174.9	158.2	149.1	145.9	141.8	142.4	143.4	144.3
95°	413.4	350.0	299.6	265.1	234.7	222.8	220.9	215.2
97.5°	566.6	523.4	474.3	424.8	398.5	374.8	363.3	359.1
100°	634.2	617.1	575.5	531.7	502.0	470.9	455.6	449.8
102.5°	654.7	673.1	655.6	626.9	594.9	573.2	556.5	552.5
105°	634.1	700.8	725.4	723.6	710.8	697.6	690.2	686.4
107.5°	577.9	665.2	721.0	747.7	756.5	757.8	756.3	754.2
110°	536.5	626.9	695.1	736.6	758.6	768.8	773.6	775.3



TEST NUMBER: P333264-927

CATALOG NUMBER: S125DIP-S1090D590U927-4F0-1E-UDD-D4

CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
112.5°	503.0	588.9	657.7	705.9	737.3	753.7	763.3	768.2
115°	460.6	534.9	601.1	653.2	689.8	713.0	727.1	734.4
117.5°	430.9	495.4	552.7	600.7	637.5	661.6	675.8	681.0
120°	414.5	472.8	526.5	569.0	603.9	627.0	640.6	645.6
122.5°	400.9	455.0	503.2	543.0	574.3	595.6	609.2	613.9
125°	381.5	431.4	474.5	509.5	536.1	555.8	566.9	572.6
127.5°	361.6	408.1	448.3	481.2	505.6	523.3	534.1	537.4
130°	349.6	392.7	431.3	462.9	486.6	502.7	513.0	516.9
132.5°	337.1	377.7	413.0	443.5	467.1	482.9	492.3	496.3
135°	319.7	354.0	386.0	413.9	435.0	451.1	460.4	464.3
137.5°	305.4	333.4	360.3	384.0	402.7	417.2	425.7	429.7
140°	297.0	320.9	344.3	365.0	382.7	395.4	403.1	406.3
142.5°	289.9	310.1	330.2	348.2	363.4	374.3	381.7	384.5
145°	281.2	296.4	311.6	324.9	336.7	345.3	351.2	353.9
147.5°	273.8	285.6	296.7	306.3	315.3	321.9	325.2	326.5
150°	269.7	279.7	288.3	296.6	303.6	309.3	311.2	312.0
152.5°	266.2	275.0	282.9	289.2	295.0	299.4	301.2	301.7
155°	260.7	268.0	274.3	279.2	283.8	286.9	288.3	288.8
157.5°	255.3	261.3	266.2	270.1	273.5	276.2	277.4	277.3
160°	251.7	256.2	260.7	263.9	267.0	269.3	270.2	269.7
162.5°	247.7	251.9	255.6	258.5	260.9	262.8	263.0	262.9
165°	242.2	245.3	248.1	250.3	252.2	253.0	253.0	253.0
167.5°	236.9	239.1	241.1	242.7	243.7	244.5	244.1	244.0
170°	234.1	235.4	236.8	237.7	238.6	239.1	239.1	238.6
172.5°	230.8	232.2	233.1	233.7	233.9	234.7	234.0	233.5
175°	227.3	227.3	228.2	228.2	228.2	228.6	227.8	227.3
177.5°	224.8	225.2	225.2	225.2	224.8	225.2	224.1	224.1
180°	224.1	224.1	224.1	224.1	224.1	224.1	224.1	224.1

(END OF REPORT)