

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: P333253-927

Luminaire Tested: **S125DIP-S1090D365U927-4F0-1E-UDD-D**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P333253-927  
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-S1090D365U927-4F0-1E-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**

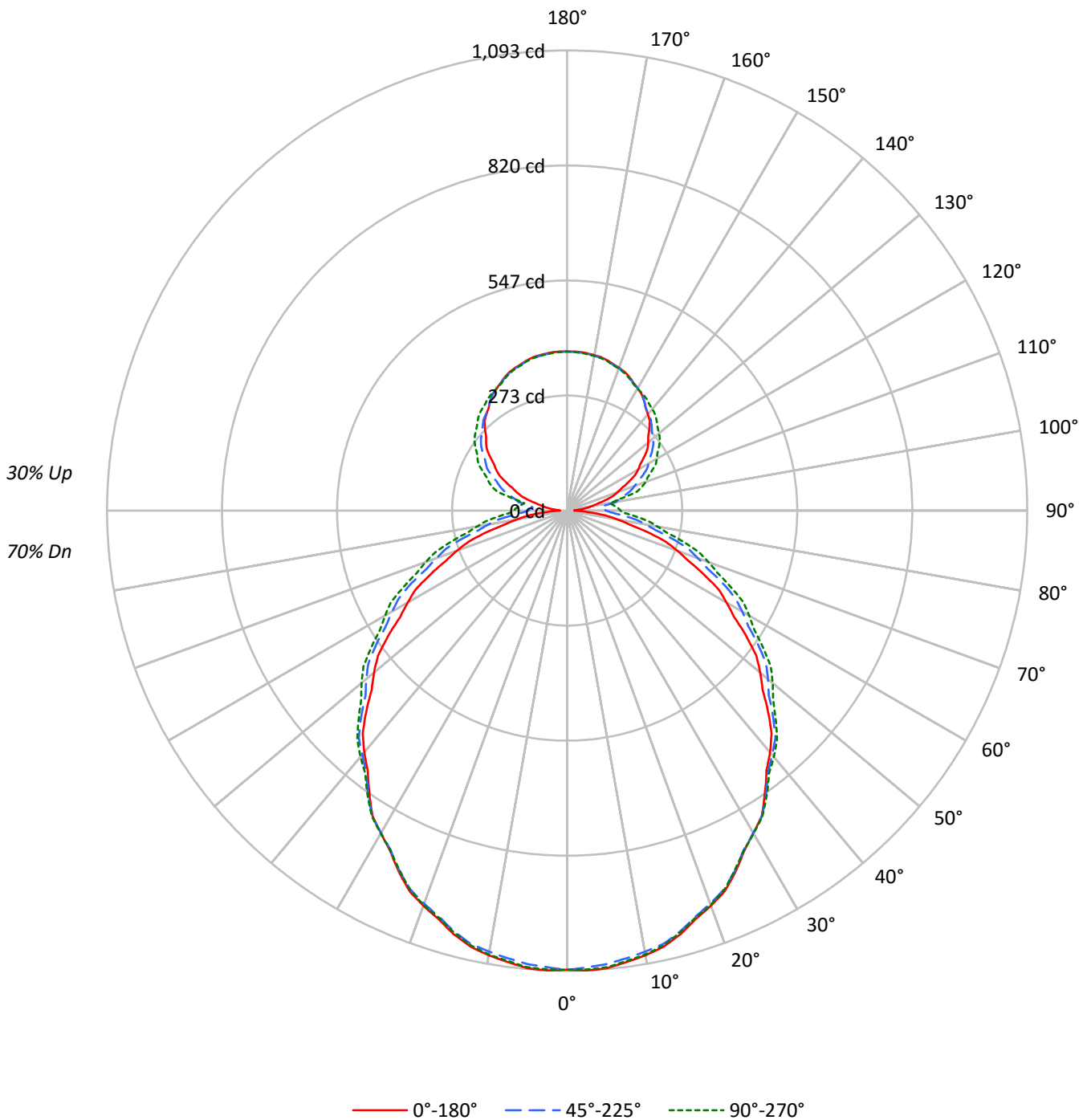
Lumens per Lamp: N/A  
Luminaire Lumens: 4539.4 lumens  
Efficiency: N/A  
Efficacy: 104.4 lumens/watt  
Spacing Criteria (0/90/45): 1.21 / 1.21 / 1.34  
Luminous Opening: Rectangular w/ Sides (W: 0.42' x L: 4' x H: 0.08')  
CIE Type: Semi-Direct  
  
Input Watts (W): 43.5  
Input Voltage (V): 120  
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





TEST NUMBER: P333253-927

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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°	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



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	103.1	2.3
10°-20°	292.8	6.5
20°-30°	435.5	9.6
30°-40°	515.8	11.4
40°-50°	533.3	11.7
50°-60°	491.3	10.8
60°-70°	397.1	8.7
70°-80°	265.9	5.9
80°-90°	138.7	3.1
90°-100°	91.1	2.0
100°-110°	141.7	3.1
110°-120°	191.7	4.2
120°-130°	218.6	4.8
130°-140°	221.3	4.9
140°-150°	200.7	4.4
150°-160°	160.8	3.5
160°-170°	104.0	2.3
170°-180°	35.9	0.8
0°-30°	831.4	18.3
0°-40°	1347.2	29.7
0°-60°	2371.8	52.2
0°-90°	3173.5	69.9
90°-120°	424.5	9.4
90°-150°	1065.1	23.5
90°-180°	1366.0	30.1
0°-180°	4539.4	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°	17	54	92	117	126	12
95°	30	57	82	106	115	31
105°	92	111	142	163	171	97
115°	161	171	198	215	221	160
125°	224	226	246	262	267	200
135°	276	277	284	297	301	213
145°	319	318	318	324	327	199
155°	350	348	349	350	348	161
165°	369	368	368	369	367	104
175°	378	376	376	378	376	36
180°	378	378	378	378	378	



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**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	48.8	56.6	64.2	72.2	80.3	88.5	96.6	104.8	110.4
90°	17.4	25.5	33.6	41.7	49.8	58.1	66.6	75.2	83.7	92.2	97.9
92.5°	19.7	26.4	33.1	39.8	46.4	54.1	62.8	71.5	80.1	88.7	94.3
95°	29.9	35.9	41.8	47.8	53.9	59.7	65.4	71.1	76.8	82.5	88.1
97.5°	45.9	51.8	57.8	63.6	69.6	74.1	77.2	80.2	83.4	86.5	89.8
100°	58.5	63.7	68.9	74.1	79.2	85.7	93.6	101.5	109.3	117.2	112.9
102.5°	71.4	76.2	81.0	85.9	90.7	97.0	104.5	112.1	119.6	127.2	130.2
105°	92.0	96.0	100.1	104.1	108.1	113.8	120.9	128.0	135.1	142.3	147.0
107.5°	113.4	116.6	119.9	123.1	126.4	131.4	138.4	145.4	152.3	159.3	164.1
110°	127.3	130.2	133.0	135.9	138.7	143.5	150.4	157.1	163.9	170.6	175.0



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**CANDELA DISTRIBUTION (continued):**

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	141.2	143.6	146.1	148.5	150.9	155.4	162.0	168.5	175.1	181.6	185.7
115°	161.0	163.0	164.9	166.9	168.9	173.0	179.3	185.4	191.7	198.0	202.0
117.5°	181.5	182.6	183.6	184.7	185.8	189.4	195.4	201.5	207.6	213.7	217.5
120°	195.0	195.6	196.2	196.9	197.5	200.7	206.4	212.0	217.6	223.3	227.2
122.5°	206.0	206.5	207.1	207.6	208.2	211.2	216.6	221.9	227.3	232.7	236.4
125°	224.1	224.3	224.5	224.7	224.9	227.4	232.1	236.9	241.6	246.4	249.9
127.5°	240.6	240.7	240.7	240.7	240.8	242.8	246.7	250.6	254.4	258.3	261.7
130°	251.3	251.4	251.4	251.5	251.6	253.3	256.7	260.1	263.5	266.9	270.1
132.5°	261.2	261.5	261.8	262.1	262.4	263.8	266.3	268.7	271.1	273.5	276.9
135°	276.3	276.4	276.6	276.7	276.8	277.7	279.2	280.7	282.3	283.8	286.8
137.5°	290.1	290.3	290.4	290.5	290.7	291.0	291.8	292.5	293.2	293.8	296.7
140°	298.4	298.6	298.7	298.8	299.0	299.1	299.3	299.4	299.6	299.8	302.5
142.5°	306.7	306.7	306.5	306.4	306.3	306.3	306.4	306.6	306.7	306.8	309.1
145°	318.9	318.8	318.7	318.5	318.5	318.4	318.4	318.4	318.4	318.4	319.6
147.5°	328.4	328.4	328.4	328.4	328.4	328.4	328.4	328.5	328.6	328.7	329.2
150°	335.2	335.1	334.9	334.8	334.7	334.7	334.8	334.9	335.1	335.2	335.3
152.5°	341.7	341.4	341.1	340.9	340.6	340.5	340.6	340.8	340.9	341.0	341.1
155°	350.1	349.7	349.3	348.9	348.6	348.4	348.6	348.6	348.8	348.9	349.1
157.5°	356.5	356.2	356.0	355.8	355.6	355.5	355.5	355.5	355.5	355.5	355.7
160°	360.9	360.6	360.2	359.8	359.5	359.3	359.3	359.4	359.5	359.6	359.8
162.5°	364.6	364.2	363.8	363.4	363.1	362.9	363.0	363.0	363.1	363.1	363.5
165°	369.3	369.0	368.6	368.2	367.9	367.7	367.7	367.8	367.9	368.0	368.3
167.5°	373.0	372.6	372.2	371.8	371.4	371.2	371.3	371.4	371.5	371.5	371.9
170°	374.9	374.5	374.1	373.7	373.2	373.0	373.1	373.1	373.2	373.3	373.8
172.5°	376.3	375.9	375.4	375.0	374.5	374.4	374.5	374.6	374.7	374.9	375.3
175°	377.7	377.4	377.0	376.6	376.3	376.1	376.1	376.2	376.3	376.4	376.8
177.5°	378.4	378.1	377.8	377.6	377.2	377.1	377.2	377.2	377.2	377.3	377.6
180°	377.7	377.7	377.7	377.7	377.7	377.7	377.7	377.7	377.7	377.7	377.7



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**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°	115.9	121.4	127.0	130.6	132.3	134.0	135.7	137.4
90°	103.7	109.5	115.3	119.1	121.0	122.8	124.6	126.5
92.5°	99.9	105.5	111.1	114.8	116.5	118.3	120.0	121.8
95°	93.6	99.2	104.7	108.3	110.0	111.6	113.3	114.9
97.5°	93.0	96.2	99.4	101.9	103.5	105.1	106.7	108.3
100°	108.6	104.3	100.1	98.5	99.7	100.8	102.0	103.2
102.5°	133.2	136.3	139.3	139.5	136.7	133.9	131.1	128.3
105°	151.8	156.5	161.3	164.5	166.0	167.6	169.3	170.9
107.5°	168.7	173.5	178.2	181.2	182.4	183.8	185.1	186.3
110°	179.4	183.6	188.0	191.0	192.7	194.5	196.2	197.9





TEST NUMBER: P333253-927

CATALOG NUMBER: S125DIP-S1090D365U927-4F0-1E-UDD-D

**CANDELA DISTRIBUTION (continued):**

	55°	60°	65°	70°	75°	80°	85°	90°
112.5°	189.7	193.8	198.0	200.7	202.3	203.9	205.5	207.1
115°	206.0	210.0	214.0	216.6	217.7	218.7	219.8	220.9
117.5°	221.2	224.9	228.5	231.2	232.6	234.1	235.5	237.0
120°	231.1	235.0	238.9	241.5	242.6	243.7	244.8	245.9
122.5°	240.1	243.8	247.6	249.9	251.0	252.1	253.1	254.2
125°	253.5	257.1	260.6	262.8	263.9	264.9	265.9	266.9
127.5°	265.0	268.4	271.8	273.9	274.8	275.8	276.7	277.6
130°	273.1	276.3	279.5	281.5	282.3	283.2	284.1	284.9
132.5°	280.1	283.4	286.7	288.7	289.4	290.1	290.7	291.4
135°	289.8	292.7	295.6	297.5	298.4	299.2	300.0	300.8
137.5°	299.5	302.4	305.1	306.9	307.5	308.2	308.8	309.4
140°	305.3	308.0	310.8	312.4	313.0	313.5	314.2	314.7
142.5°	311.3	313.6	315.8	317.3	317.8	318.5	319.0	319.6
145°	320.9	322.1	323.4	324.3	324.9	325.4	326.1	326.6
147.5°	329.6	330.0	330.5	330.7	330.7	330.7	330.7	330.7
150°	335.4	335.6	335.6	335.6	335.3	335.1	334.9	334.5
152.5°	341.3	341.4	341.5	341.4	341.0	340.6	340.2	339.8
155°	349.3	349.4	349.7	349.5	349.0	348.5	348.0	347.5
157.5°	355.9	356.1	356.3	356.2	355.7	355.1	354.7	354.2
160°	360.0	360.3	360.5	360.4	359.9	359.4	358.9	358.5
162.5°	363.8	364.2	364.6	364.4	363.8	363.3	362.8	362.3
165°	368.7	369.1	369.5	369.4	368.9	368.4	367.9	367.4
167.5°	372.4	372.8	373.3	373.2	372.6	372.1	371.5	371.0
170°	374.2	374.8	375.3	375.3	374.7	374.1	373.5	373.0
172.5°	375.7	376.2	376.6	376.6	376.0	375.4	374.9	374.3
175°	377.3	377.9	378.3	378.3	377.7	377.2	376.6	376.0
177.5°	378.0	378.3	378.7	378.7	378.3	377.9	377.5	377.1
180°	377.7	377.7	377.7	377.7	377.7	377.7	377.7	377.7

(END OF REPORT)