

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: P333213-927

Luminaire Tested: **S125DIP-S850D365U927-4F0-1E-UDD-F4**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P333213-927  
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-S850D365U927-4F0-1E-UDD-F4  
Description: DEFINE 5 DIRECT-INDIRECT PENDANT LED LUMINAIRE  
DOWNLIGHT 850 LUMENS PER FOOT, FLUSH SATIN WHITE DIFFUSER  
UPLIGHT 365 LUMENS PER FOOT, BATWING OPTIC  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 3748.2 lumens  
Efficiency: N/A  
Efficacy: 107.1 lumens/watt  
Spacing Criteria (0/90/45): 1.21 / 1.18 / 1.31  
Luminous Opening: Rectangular (W 0.42' x L: 4' x H: 0')  
CIE Type: Semi-Direct

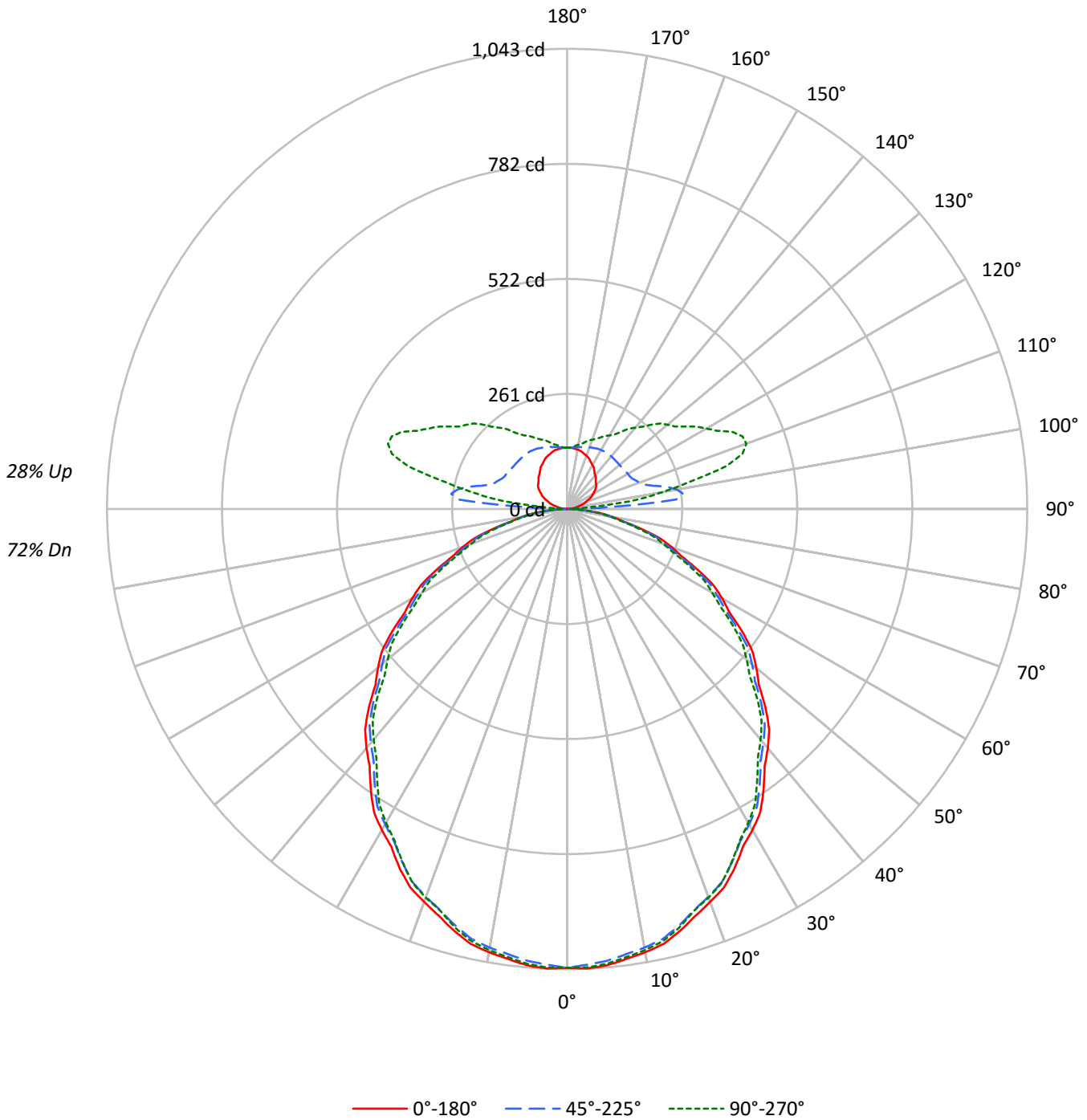
Input Watts (W): 35  
Input Voltage (V): 120  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



TEST NUMBER: P333213-927

CATALOG NUMBER: S125DIP-S850D365U927-4F0-1E-UDD-F4

### 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	112	112	112	112	107	107	107	107	96	96	96	86	86	86	77	77	77	72
1	103	98	94	90	97	93	90	86	84	81	79	75	73	71	68	66	65	61
2	93	86	79	74	88	81	76	71	74	69	65	66	63	60	59	57	54	51
3	85	75	68	62	81	72	65	59	65	59	55	59	54	50	53	49	46	43
4	78	67	59	52	74	64	56	50	58	52	47	52	47	43	47	43	40	37
5	72	60	51	45	68	57	49	43	52	45	40	47	42	38	42	38	35	32
6	66	54	45	39	63	51	43	38	47	40	35	42	37	33	38	34	31	28
7	61	49	40	34	58	46	39	33	42	36	31	39	33	29	35	31	27	25
8	57	44	36	31	54	42	35	30	39	32	28	35	30	26	32	28	24	22
9	53	40	33	27	50	39	32	27	36	29	25	33	27	24	30	25	22	20
10	50	37	30	25	47	36	29	24	33	27	23	30	25	21	28	23	20	18

**AVERAGE LUMINANCE (cd/sqm):**

	0°	45°	90°
0°	6716	6716	6716
5°	6731	6667	6710
10°	6690	6620	6658
15°	6618	6540	6568
20°	6514	6429	6441
25°	6402	6297	6291
30°	6264	6154	6123
35°	6117	6000	5916
40°	5966	5833	5751
45°	5802	5681	5569
50°	5621	5497	5332
55°	5447	5290	5141
60°	5239	5079	4899
65°	4991	4828	4664
70°	4755	4538	4381
75°	4332	4190	4045
80°	3857	3794	3704
85°	3349	3416	3231



TEST NUMBER: P333213-927

CATALOG NUMBER: S125DIP-S850D365U927-4F0-1E-UDD-F4

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	98.1	2.6
10°-20°	277.0	7.4
20°-30°	409.0	10.9
30°-40°	477.2	12.7
40°-50°	479.3	12.8
50°-60°	420.7	11.2
60°-70°	313.5	8.4
70°-80°	179.3	4.8
80°-90°	52.9	1.4
90°-100°	100.7	2.7
100°-110°	216.4	5.8
110°-120°	203.1	5.4
120°-130°	164.6	4.4
130°-140°	132.1	3.5
140°-150°	99.7	2.7
150°-160°	70.1	1.9
160°-170°	41.4	1.1
170°-180°	13.5	0.4
0°-30°	784.0	20.9
0°-40°	1261.2	33.6
0°-60°	2161.2	57.7
0°-90°	2706.9	72.2
90°-120°	520.1	13.9
90°-150°	916.4	24.4
90°-180°	1041.0	27.8
0°-180°	3748.2	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1040	1040	1040	1040	1040	
5°	1038	1036	1028	1035	1035	98
15°	990	987	978	982	982	279
25°	898	894	884	885	883	413
35°	776	772	761	757	750	485
45°	635	631	622	612	610	489
55°	484	481	470	462	457	432
65°	327	325	316	309	305	324
75°	174	172	168	165	162	185
85°	45	46	46	45	44	51
90°	0	2	4	6	6	3
95°	9	27	248	113	66	10
105°	32	44	203	400	371	33
115°	57	68	163	351	413	56
125°	78	92	156	279	326	70
135°	92	110	155	234	270	71
145°	107	122	156	194	213	67
155°	122	131	152	171	179	56
165°	133	137	146	154	157	38
175°	139	139	140	141	141	13
180°	139	139	139	139	139	



TEST NUMBER: P333213-927

CATALOG NUMBER: S125DIP-S850D365U927-4F0-1E-UDD-F4

**CANDELA DISTRIBUTION (FULL):**

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	1039.9	1039.9	1039.9	1039.9	1039.9	1039.9	1039.9	1039.9	1039.9	1039.9	1039.9
2.5°	1042.6	1042.1	1041.7	1041.2	1040.8	1039.8	1038.4	1037.0	1035.5	1034.0	1035.5
5°	1038.3	1037.9	1037.5	1037.2	1036.8	1035.7	1033.9	1032.1	1030.2	1028.4	1030.1
7.5°	1028.7	1028.4	1028.0	1027.6	1027.3	1026.1	1024.1	1022.1	1020.1	1018.0	1019.6
10°	1020.2	1019.9	1019.5	1019.1	1018.7	1017.6	1015.5	1013.5	1011.5	1009.5	1011.0
12.5°	1009.6	1009.0	1008.4	1007.7	1007.0	1005.8	1003.9	1002.0	1000.1	998.3	999.5
15°	989.8	989.2	988.6	988.1	987.5	986.3	984.3	982.2	980.2	978.2	979.1
17.5°	966.9	966.1	965.3	964.5	963.7	962.2	960.1	958.1	955.9	953.9	955.0
20°	947.8	947.5	947.1	946.7	946.3	944.9	942.5	940.2	937.8	935.4	936.8
22.5°	928.7	928.0	927.4	926.7	926.1	924.6	922.4	920.1	917.9	915.7	916.6
25°	898.4	897.5	896.6	895.6	894.8	893.1	890.7	888.4	886.0	883.6	884.0
27.5°	863.0	862.5	862.0	861.4	860.9	859.4	856.9	854.4	852.0	849.5	849.6
30°	840.0	839.5	838.9	838.4	837.8	836.1	833.5	830.7	827.9	825.2	824.8
32.5°	815.0	814.1	813.3	812.5	811.7	810.0	807.6	805.1	802.6	800.2	799.5
35°	775.9	775.1	774.4	773.6	772.9	771.3	768.7	766.1	763.6	761.0	760.1
37.5°	735.2	734.3	733.3	732.5	731.5	729.8	727.5	725.0	722.6	720.3	718.8
40°	707.6	706.6	705.8	704.8	703.9	702.2	699.6	697.0	694.5	691.9	690.3
42.5°	677.9	677.2	676.4	675.7	674.9	673.2	670.7	668.0	665.5	663.0	661.5
45°	635.2	634.4	633.7	633.0	632.2	630.7	628.6	626.4	624.2	622.0	619.8
47.5°	589.1	589.1	589.1	589.1	589.2	588.0	585.3	582.7	580.0	577.4	575.1
50°	559.4	558.9	558.3	557.8	557.3	555.9	553.7	551.5	549.3	547.1	544.7
52.5°	529.2	528.8	528.4	528.0	527.6	526.2	523.9	521.5	519.2	516.8	514.8
55°	483.8	483.2	482.7	482.1	481.6	480.0	477.4	474.9	472.3	469.8	468.1
57.5°	435.9	435.6	435.3	435.0	434.7	433.5	431.3	429.2	427.0	424.8	422.7
60°	405.6	404.9	404.2	403.4	402.7	401.3	399.3	397.3	395.3	393.2	391.4
62.5°	374.0	373.4	372.9	372.2	371.7	370.5	368.8	367.1	365.4	363.6	361.7
65°	326.6	326.2	325.9	325.5	325.2	324.0	321.9	320.0	317.9	315.9	314.3
67.5°	280.7	280.0	279.2	278.4	277.7	276.5	275.0	273.5	272.0	270.5	269.1
70°	251.8	250.8	249.9	249.0	248.1	246.8	245.2	243.5	241.9	240.3	239.2
72.5°	220.1	219.5	218.9	218.3	217.7	216.8	215.8	214.7	213.7	212.6	211.4
75°	173.6	173.3	172.9	172.5	172.1	171.5	170.6	169.7	168.7	167.9	167.3
77.5°	130.6	130.5	130.4	130.2	130.1	129.8	129.2	128.7	128.2	127.7	127.4
80°	103.7	103.7	103.7	103.7	103.7	103.5	103.1	102.7	102.3	102.0	101.9
82.5°	79.9	79.7	79.4	79.1	78.8	78.6	78.5	78.5	78.4	78.3	78.0
85°	45.2	45.5	45.6	45.8	45.9	46.1	46.1	46.1	46.1	46.1	45.9
87.5°	17.8	17.9	18.0	18.1	18.2	18.2	18.1	18.1	18.1	18.0	18.1
90°	0.3	0.6	1.1	1.7	2.2	2.8	3.1	3.6	3.9	4.5	4.8
92.5°	3.4	4.1	6.5	10.0	14.8	23.0	38.3	63.8	91.7	90.2	73.0
95°	9.3	9.5	11.7	14.8	21.0	33.6	63.5	125.2	202.4	248.0	242.7
97.5°	15.4	15.7	17.3	20.4	25.9	34.9	54.7	99.9	180.8	264.9	307.1
100°	19.6	20.1	21.3	24.3	29.7	38.1	54.3	90.7	161.3	252.8	322.8
102.5°	24.3	24.6	25.5	28.8	33.7	41.9	56.3	86.9	146.5	231.6	313.4
105°	31.6	31.6	33.0	35.8	40.3	48.2	60.4	85.4	132.1	203.0	283.4
107.5°	38.8	39.4	40.7	43.0	47.7	54.7	66.6	87.9	126.1	183.3	252.6
110°	44.0	44.5	45.6	48.2	52.4	59.7	71.1	90.5	124.3	174.1	235.2



TEST NUMBER: P333213-927

CATALOG NUMBER: S125DIP-S850D365U927-4F0-1E-UDD-F4

**CANDELA DISTRIBUTION (continued):**

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	49.1	49.7	50.5	53.1	57.3	64.3	75.3	93.6	124.3	168.7	222.2
115°	56.6	57.1	58.0	60.4	64.6	71.7	82.1	98.2	125.2	163.0	208.0
117.5°	63.3	64.1	65.0	67.5	72.3	79.1	88.9	103.6	127.0	160.1	199.6
120°	67.7	68.6	69.7	72.2	77.0	84.0	93.8	107.3	128.8	158.8	194.9
122.5°	72.5	73.0	74.0	76.5	81.7	88.7	98.5	111.2	130.3	157.6	190.8
125°	78.4	79.0	80.3	82.9	88.2	95.5	104.7	116.8	133.0	156.2	185.4
127.5°	83.0	83.9	85.6	88.9	94.5	101.8	110.7	121.8	135.9	155.6	180.3
130°	86.0	86.8	89.0	92.7	98.5	105.8	114.5	125.2	137.8	155.1	177.0
132.5°	88.2	89.3	92.0	96.0	102.1	109.4	118.1	128.1	139.7	155.1	174.3
135°	91.8	92.9	96.3	100.8	106.7	114.2	122.9	132.1	142.5	155.1	171.0
137.5°	96.4	97.3	100.4	104.9	110.7	118.4	126.4	135.1	145.0	155.4	168.2
140°	99.1	100.0	103.3	107.8	113.1	120.6	128.8	137.2	146.2	155.7	166.8
142.5°	102.3	102.8	106.0	110.5	115.6	122.7	130.3	138.3	146.8	155.9	165.7
145°	106.9	107.5	110.3	114.2	119.3	125.7	133.0	140.0	147.5	155.7	164.1
147.5°	111.9	112.2	114.6	118.3	122.6	128.3	134.7	141.0	147.8	155.0	162.3
150°	114.8	115.3	117.3	121.0	124.8	129.6	135.8	141.6	147.8	154.2	161.0
152.5°	118.0	118.3	120.0	123.2	126.9	131.2	136.9	142.1	147.6	153.4	159.4
155°	122.1	122.1	123.7	126.5	129.4	133.2	138.0	142.5	146.9	151.8	156.8
157.5°	125.8	125.7	127.1	129.4	131.9	134.9	138.9	142.8	146.2	150.0	154.3
160°	128.3	127.9	129.0	131.0	133.2	135.8	139.4	142.8	145.6	148.9	152.3
162.5°	130.2	130.0	131.1	132.8	134.6	136.7	139.9	142.6	144.9	147.6	150.5
165°	133.2	132.7	133.6	134.9	136.1	137.8	140.0	142.2	143.9	145.6	147.8
167.5°	135.3	135.0	135.5	136.3	137.0	138.2	140.0	141.6	142.4	143.6	145.2
170°	136.7	136.3	136.7	137.2	137.8	138.6	140.0	141.1	141.6	142.5	143.6
172.5°	137.5	137.0	137.3	137.8	138.2	138.6	139.7	140.7	140.8	141.2	142.0
175°	138.6	138.0	138.3	138.6	138.6	138.6	139.4	140.0	139.7	139.7	140.0
177.5°	139.1	138.6	138.6	138.9	138.6	138.6	139.1	139.3	138.9	138.9	139.1
180°	138.9	138.9	138.9	138.9	138.9	138.9	138.9	138.9	138.9	138.9	138.9



TEST NUMBER: P333213-927

CATALOG NUMBER: S125DIP-S850D365U927-4F0-1E-UDD-F4

**CANDELA DISTRIBUTION (continued):**

	55°	60°	65°	70°	75°	80°	85°	90°
0°	1039.9	1039.9	1039.9	1039.9	1039.9	1039.9	1039.9	1039.9
2.5°	1037.0	1038.4	1039.8	1040.5	1040.4	1040.2	1040.1	1039.9
5°	1031.7	1033.3	1035.0	1035.7	1035.5	1035.4	1035.1	1035.0
7.5°	1021.3	1022.9	1024.5	1025.2	1025.0	1024.8	1024.6	1024.5
10°	1012.4	1013.9	1015.3	1016.0	1015.8	1015.6	1015.4	1015.3
12.5°	1000.6	1001.8	1003.0	1003.5	1003.5	1003.5	1003.5	1003.4
15°	980.1	981.0	981.9	982.3	982.3	982.3	982.3	982.3
17.5°	956.2	957.3	958.4	958.5	957.6	956.7	955.8	954.9
20°	938.0	939.3	940.6	940.7	939.8	938.9	938.0	937.1
22.5°	917.3	918.2	919.1	919.2	918.5	917.9	917.3	916.7
25°	884.3	884.7	885.1	884.9	884.5	883.9	883.4	882.8
27.5°	849.7	849.8	849.9	849.6	849.1	848.5	848.0	847.4
30°	824.5	824.1	823.7	823.3	822.8	822.2	821.7	821.1
32.5°	798.8	798.2	797.6	796.7	795.7	794.7	793.8	792.8
35°	759.2	758.3	757.4	756.2	754.7	753.3	751.8	750.4
37.5°	717.5	716.1	714.8	713.7	712.9	712.0	711.2	710.3
40°	688.6	687.0	685.3	684.2	683.7	683.2	682.6	682.1
42.5°	660.0	658.5	657.0	655.8	655.0	654.1	653.2	652.4
45°	617.6	615.4	613.2	611.8	611.3	610.8	610.2	609.7
47.5°	572.9	570.7	568.5	566.7	565.5	564.2	562.8	561.6
50°	542.3	540.0	537.6	535.8	534.5	533.2	532.0	530.7
52.5°	512.7	510.6	508.5	506.8	505.3	503.9	502.5	501.1
55°	466.5	464.9	463.2	461.8	460.4	459.1	457.9	456.6
57.5°	420.6	418.5	416.4	414.9	414.2	413.6	412.9	412.2
60°	389.6	387.8	386.0	384.4	383.1	381.8	380.6	379.3
62.5°	359.7	357.7	355.8	354.3	353.3	352.3	351.3	350.3
65°	312.7	311.0	309.3	308.2	307.4	306.7	305.9	305.2
67.5°	267.8	266.3	265.0	264.0	263.6	263.2	262.7	262.3
70°	238.1	236.9	235.8	235.0	234.2	233.5	232.7	232.0
72.5°	210.1	208.9	207.6	206.6	205.9	205.2	204.5	203.7
75°	166.8	166.2	165.6	165.0	164.3	163.5	162.8	162.1
77.5°	127.1	126.7	126.4	126.0	125.4	124.9	124.5	123.9
80°	101.6	101.5	101.3	101.0	100.7	100.3	99.9	99.6
82.5°	77.6	77.3	77.0	76.8	76.8	76.7	76.6	76.5
85°	45.7	45.6	45.3	45.1	44.7	44.4	44.0	43.6
87.5°	18.1	18.1	18.2	18.2	17.9	17.6	17.3	17.1
90°	5.1	5.3	5.6	6.2	6.2	6.2	6.4	6.4
92.5°	49.6	36.0	27.1	23.0	19.4	18.7	18.3	17.8
95°	201.3	158.8	124.3	100.8	80.9	72.5	70.3	65.8
97.5°	299.8	270.0	236.4	203.7	186.4	170.7	162.6	159.0
100°	344.4	330.7	301.8	272.7	253.3	233.2	222.8	218.4
102.5°	359.3	367.8	354.0	334.3	313.6	299.3	288.0	284.7
105°	350.5	388.9	401.2	398.2	389.1	379.9	374.3	371.0
107.5°	318.9	370.1	401.7	416.4	420.9	420.9	419.0	416.8
110°	295.6	348.9	388.3	412.1	424.7	430.0	432.0	432.0





TEST NUMBER: P333213-927

CATALOG NUMBER: S125DIP-S850D365U927-4F0-1E-UDD-F4

**CANDELA DISTRIBUTION (continued):**

	55°	60°	65°	70°	75°	80°	85°	90°
112.5°	277.3	327.8	367.7	395.8	414.2	423.3	428.2	430.2
115°	254.2	297.6	336.0	366.5	388.3	401.7	409.6	413.2
117.5°	239.3	276.7	309.7	337.8	359.6	373.5	381.3	383.5
120°	231.2	264.8	295.6	320.3	341.0	354.4	362.0	364.2
122.5°	225.2	256.4	283.8	306.8	325.3	337.6	345.2	347.2
125°	216.4	244.9	269.3	289.5	305.1	316.6	322.8	325.6
127.5°	207.5	234.1	256.8	275.7	289.9	300.1	305.9	307.1
130°	201.8	226.5	248.3	266.6	280.5	289.8	295.4	297.1
132.5°	196.2	219.4	239.2	256.7	270.7	279.9	285.0	286.9
135°	189.0	208.3	226.2	242.2	254.5	263.7	268.8	270.5
137.5°	182.8	198.4	213.3	226.9	237.9	246.3	251.0	252.8
140°	179.4	192.6	205.5	217.2	227.6	234.9	239.1	240.5
142.5°	176.6	187.7	198.8	209.0	217.8	223.9	227.9	229.1
145°	172.8	181.4	190.1	197.6	204.4	209.1	212.2	213.3
147.5°	169.1	176.2	182.9	188.6	193.9	197.7	199.5	200.0
150°	167.2	173.3	178.6	183.6	187.8	191.2	192.3	192.6
152.5°	164.9	170.4	175.2	179.2	182.7	185.4	186.5	186.8
155°	161.5	166.0	169.9	173.0	175.8	177.8	178.6	178.9
157.5°	158.2	161.8	164.9	167.3	169.5	171.1	171.9	171.8
160°	156.0	158.8	161.5	163.5	165.5	166.8	167.4	167.2
162.5°	153.4	156.1	158.4	160.2	161.7	162.8	163.0	162.9
165°	150.0	152.0	153.7	155.1	156.2	156.8	156.8	156.8
167.5°	146.8	148.1	149.4	150.4	151.0	151.5	151.2	151.1
170°	145.0	145.8	146.7	147.3	147.8	148.1	148.1	147.8
172.5°	143.0	143.9	144.5	144.8	144.9	145.4	145.0	144.7
175°	140.9	140.9	141.4	141.4	141.4	141.6	141.1	140.9
177.5°	139.3	139.5	139.5	139.5	139.3	139.5	138.9	138.9
180°	138.9	138.9	138.9	138.9	138.9	138.9	138.9	138.9

(END OF REPORT)