

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: P333226-927

Luminaire Tested: **S125DIP-S850D810U927-4F0-1E-UDD-D**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P333226-927  
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-S850D810U927-4F0-1E-UDD-D  
Description: DEFINE 5 DIRECT-INDIRECT PENDANT LED LUMINAIRE  
DOWNLIGHT 850 LUMENS PER FOOT, DROP SATIN WHITE DIFFUSER  
UPLIGHT 810 LUMENS PER FOOT, NO LENS  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 5167.4 lumens  
Efficiency: N/A  
Efficacy: 112.6 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: General Diffuse

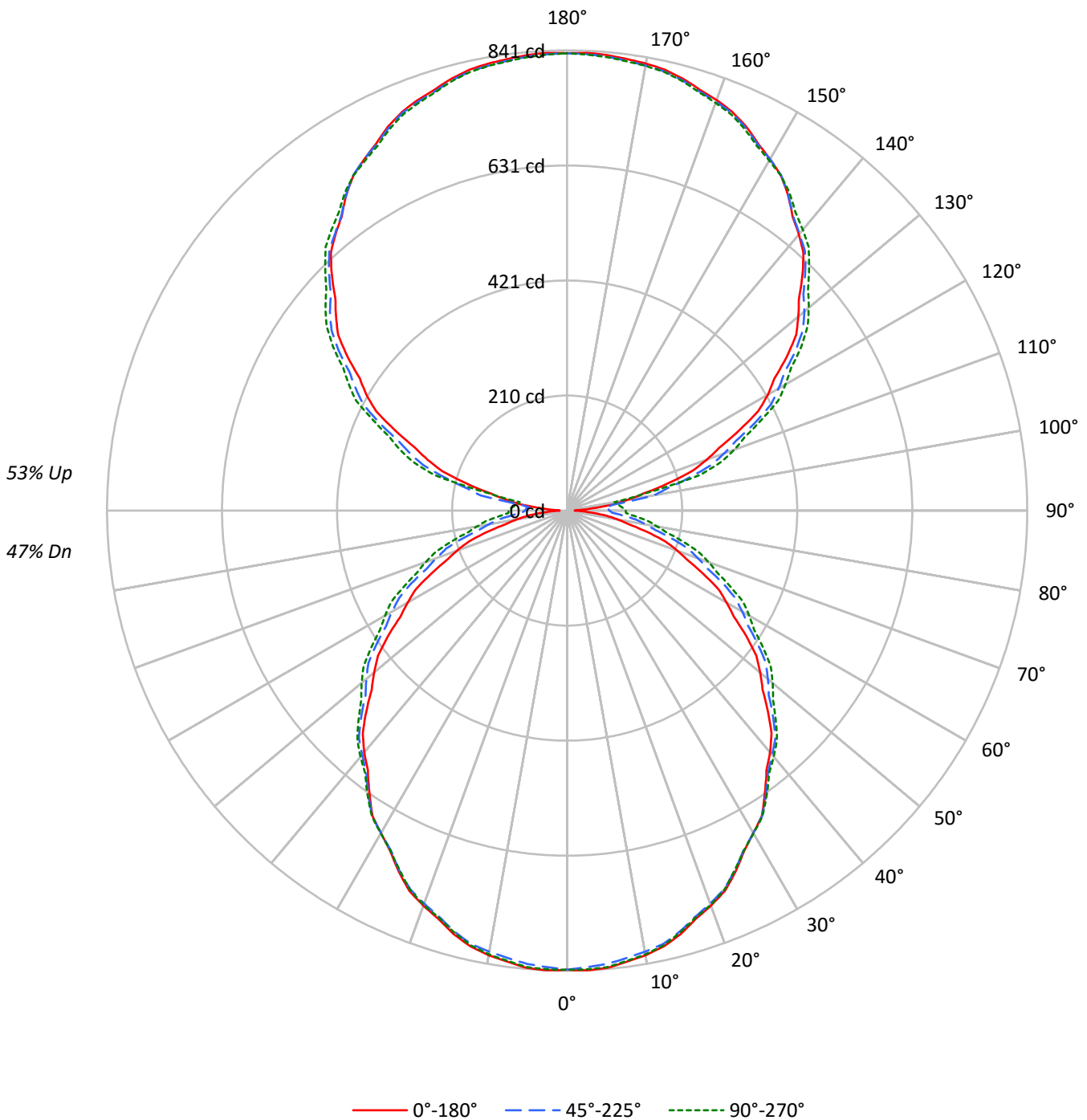
Input Watts (W): 45.9  
Input Voltage (V): 120  
Input Current (A<sub>in</sub>): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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### Luminous Intensity Polar Plot





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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	106	106	106	106	98	98	98	98	82	82	82		67	67	67		54	54	54	47
1	96	92	88	84	88	84	81	78	71	68	66		58	56	54		46	45	44	38
2	88	80	73	68	80	73	68	63	61	57	54		50	48	45		40	38	36	32
3	80	70	62	56	73	64	58	52	54	49	45		44	41	38		35	33	31	26
4	73	62	54	47	66	57	50	44	48	42	38		39	35	32		32	29	26	22
5	67	55	47	40	61	51	43	38	43	37	33		35	31	28		28	25	23	19
6	61	49	41	35	56	45	38	33	38	33	28		32	27	24		26	22	20	17
7	57	44	36	31	52	41	34	29	35	29	25		29	25	21		23	20	18	15
8	53	40	32	27	48	37	30	25	32	26	22		26	22	19		21	18	16	13
9	49	37	29	24	45	34	27	23	29	24	20		24	20	17		20	17	14	12
10	46	34	26	21	42	31	25	20	27	21	18		22	18	15		18	15	13	11

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

	0°	45°	90°
0°	5420	5420	5420
5°	5431	5320	5337
10°	5392	5225	5217
15°	5329	5111	5064
20°	5241	4970	4912
25°	5139	4820	4724
30°	5014	4654	4554
35°	4897	4502	4398
40°	4778	4342	4241
45°	4644	4205	4102
50°	4517	4056	3979
55°	4363	3916	3833
60°	4195	3756	3686
65°	4020	3589	3520
70°	3820	3359	3349
75°	3505	3139	3139
80°	3093	2872	2910
85°	2705	2693	2839



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	79.4	1.5
10°-20°	225.3	4.4
20°-30°	335.0	6.5
30°-40°	396.8	7.7
40°-50°	410.3	7.9
50°-60°	377.9	7.3
60°-70°	305.5	5.9
70°-80°	204.6	4.0
80°-90°	107.8	2.1
90°-100°	89.9	1.7
100°-110°	231.1	4.5
110°-120°	368.9	7.1
120°-130°	452.4	8.8
130°-140°	475.9	9.2
140°-150°	441.3	8.5
150°-160°	355.8	6.9
160°-170°	230.1	4.5
170°-180°	79.4	1.5
0°-30°	639.6	12.4
0°-40°	1036.4	20.1
0°-60°	1824.7	35.3
0°-90°	2442.6	47.3
90°-120°	689.9	13.4
90°-150°	2059.5	39.9
90°-180°	2725.0	52.7
0°-180°	5167.4	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	839	839	839	839	839	
5°	839	837	832	838	838	80
15°	801	802	796	801	798	226
25°	728	730	726	729	725	335
35°	630	636	634	636	636	394
45°	519	528	532	538	539	400
55°	399	412	425	434	438	357
65°	275	294	314	325	329	273
75°	151	173	199	215	220	161
85°	45	72	101	119	126	48
90°	14	45	77	99	107	10
95°	46	65	70	90	97	53
105°	190	206	230	246	251	201
115°	347	356	378	389	391	344
125°	490	494	510	520	522	437
135°	608	611	616	625	625	469
145°	704	704	704	709	709	440
155°	774	771	772	773	769	357
165°	817	814	814	817	813	231
175°	836	832	833	837	832	80
180°	836	836	836	836	836	



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**CANDELA DISTRIBUTION (FULL):**

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	839.2	839.2	839.2	839.2	839.2	839.2	839.2	839.2	839.2	839.2	839.2
2.5°	841.1	840.9	840.6	840.3	840.0	839.3	838.3	837.3	836.2	835.2	836.2
5°	839.2	838.8	838.4	838.0	837.7	836.9	835.6	834.3	833.1	831.8	833.2
7.5°	831.8	831.6	831.5	831.3	831.2	830.4	829.2	827.8	826.5	825.2	826.5
10°	825.2	825.2	825.2	825.2	825.2	824.5	823.0	821.6	820.1	818.6	819.9
12.5°	815.9	816.1	816.3	816.4	816.6	816.0	814.9	813.7	812.5	811.4	812.4
15°	801.4	801.5	801.7	801.8	802.1	801.5	800.3	799.0	797.6	796.4	797.5
17.5°	782.3	782.6	783.0	783.3	783.7	783.2	782.0	780.7	779.4	778.2	779.0
20°	768.4	768.8	769.1	769.5	769.9	769.4	768.2	766.9	765.6	764.3	764.9
22.5°	752.7	753.3	753.9	754.6	755.3	754.9	753.4	752.0	750.6	749.2	749.9
25°	728.1	728.6	729.2	729.8	730.3	730.0	729.0	727.9	726.7	725.6	726.4
27.5°	700.8	701.6	702.4	703.2	704.0	703.8	702.6	701.3	700.1	698.9	699.3
30°	680.4	681.5	682.6	683.7	684.8	684.8	683.7	682.6	681.5	680.4	680.8
32.5°	661.9	662.9	663.8	664.8	665.7	665.8	665.0	664.2	663.5	662.7	663.0
35°	630.2	631.5	632.8	634.1	635.3	635.7	635.2	634.6	634.1	633.5	634.1
37.5°	598.4	599.6	600.8	602.0	603.2	603.6	603.4	603.2	603.1	602.9	603.6
40°	576.7	578.2	579.6	581.1	582.6	583.2	583.0	582.9	582.7	582.5	583.2
42.5°	553.0	554.9	556.8	558.7	560.6	561.8	562.2	562.6	563.0	563.4	564.3
45°	519.1	521.2	523.2	525.1	527.2	528.6	529.6	530.4	531.4	532.3	533.6
47.5°	484.4	486.3	488.1	490.0	491.9	493.6	495.2	496.8	498.3	499.9	501.8
50°	460.7	462.7	464.8	466.8	468.7	470.8	472.8	474.8	476.8	478.8	480.9
52.5°	435.7	438.2	440.6	443.1	445.5	448.0	450.4	452.9	455.3	457.8	459.9
55°	399.0	402.0	404.9	407.8	410.7	413.7	416.6	419.5	422.4	425.3	427.4
57.5°	361.5	365.0	368.5	372.0	375.6	379.0	382.4	385.7	389.0	392.4	394.7
60°	336.5	340.2	343.8	347.5	351.1	354.8	358.5	362.1	365.8	369.4	372.2
62.5°	312.1	315.8	319.5	323.1	326.8	330.6	334.5	338.5	342.4	346.3	349.4
65°	274.8	279.0	283.2	287.4	291.6	295.9	300.3	304.7	309.1	313.5	316.2
67.5°	239.6	243.7	247.7	251.8	255.8	260.1	264.5	269.0	273.5	277.9	281.2
70°	213.9	218.1	222.3	226.6	230.8	235.2	240.0	244.7	249.5	254.2	257.7
72.5°	188.9	193.2	197.6	201.9	206.3	211.0	216.3	221.5	226.6	231.9	235.6
75°	151.4	156.1	160.9	165.6	170.4	175.7	181.6	187.4	193.2	199.1	202.7
77.5°	115.3	120.8	126.4	131.8	137.3	142.8	148.5	154.1	159.7	165.4	169.4
80°	93.0	98.5	103.9	109.4	114.9	120.7	127.0	133.2	139.4	145.6	149.6
82.5°	72.6	78.3	84.1	89.9	95.7	101.7	108.1	114.5	120.8	127.2	131.1
85°	45.2	51.3	57.4	63.4	69.4	75.6	82.0	88.4	94.8	101.2	105.2
87.5°	25.8	31.8	37.9	44.0	50.1	56.3	62.7	69.2	75.6	82.0	86.3
90°	13.8	20.8	27.7	34.6	41.6	48.6	55.8	63.0	70.2	77.4	82.3
92.5°	21.4	26.1	30.7	35.3	39.9	45.9	53.1	60.3	67.5	74.8	79.5
95°	46.0	50.4	54.7	59.0	63.4	66.1	67.0	68.0	69.0	69.9	74.7
97.5°	83.4	88.5	93.5	98.5	103.5	103.9	99.5	95.1	90.8	86.4	86.3
100°	112.5	116.8	121.0	125.2	129.5	134.8	141.2	147.7	154.1	160.4	143.8
102.5°	142.1	146.2	150.2	154.3	158.4	163.4	169.4	175.5	181.5	187.6	187.4
105°	189.6	193.1	196.5	199.9	203.4	207.9	213.4	218.9	224.3	229.9	233.5
107.5°	238.8	241.4	243.8	246.3	248.8	252.8	258.3	263.9	269.4	275.0	278.6
110°	270.9	273.1	275.3	277.5	279.7	283.5	288.9	294.3	299.7	305.1	308.2



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**CANDELA DISTRIBUTION (continued):**

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	301.7	303.7	305.8	307.9	310.0	313.6	318.8	323.8	329.0	334.1	336.9
115°	346.9	348.9	350.9	352.8	354.8	358.2	363.1	368.0	372.9	377.8	380.5
117.5°	393.8	394.6	395.5	396.2	397.0	400.0	405.0	410.0	415.0	420.0	422.5
120°	423.5	424.0	424.4	424.8	425.2	427.7	432.3	436.9	441.6	446.2	449.0
122.5°	449.2	449.9	450.7	451.5	452.3	454.8	459.0	463.3	467.5	471.7	474.4
125°	489.6	490.4	491.2	491.9	492.7	495.0	498.6	502.2	506.0	509.6	512.0
127.5°	527.6	528.1	528.6	529.1	529.6	531.3	534.2	537.2	540.0	543.0	545.3
130°	551.4	551.8	552.4	552.9	553.4	555.0	557.7	560.4	563.1	565.8	567.9
132.5°	574.5	575.3	576.0	576.8	577.6	578.8	580.4	582.1	583.8	585.4	588.0
135°	608.2	608.8	609.4	610.1	610.7	611.6	612.6	613.5	614.6	615.6	617.7
137.5°	639.1	639.7	640.2	640.8	641.4	641.8	642.2	642.6	642.9	643.3	645.5
140°	658.8	659.0	659.3	659.6	659.9	660.0	660.0	660.1	660.1	660.2	662.5
142.5°	677.1	677.1	677.2	677.2	677.2	677.3	677.6	677.8	677.9	678.2	680.0
145°	704.0	704.1	704.2	704.3	704.3	704.4	704.4	704.4	704.4	704.4	705.4
147.5°	726.7	726.7	726.6	726.5	726.5	726.5	726.7	726.8	727.1	727.2	727.6
150°	741.6	741.3	741.0	740.8	740.5	740.5	740.8	741.0	741.3	741.6	741.9
152.5°	756.0	755.3	754.7	754.2	753.5	753.4	753.6	753.9	754.2	754.5	754.7
155°	774.4	773.6	772.8	771.9	771.1	770.8	771.1	771.3	771.7	771.9	772.3
157.5°	788.6	788.1	787.7	787.2	786.6	786.4	786.5	786.5	786.5	786.6	787.0
160°	798.6	797.7	796.9	796.1	795.3	795.0	795.0	795.2	795.4	795.4	796.0
162.5°	806.5	805.6	804.9	804.0	803.2	802.9	803.0	803.1	803.3	803.4	804.1
165°	817.1	816.3	815.5	814.7	813.8	813.5	813.7	813.8	813.9	814.0	814.9
167.5°	825.1	824.3	823.4	822.5	821.7	821.3	821.4	821.6	821.7	821.9	822.8
170°	829.6	828.5	827.6	826.6	825.7	825.3	825.4	825.5	825.7	825.9	827.0
172.5°	832.5	831.6	830.6	829.7	828.6	828.3	828.5	828.8	829.0	829.3	830.3
175°	835.8	834.9	834.1	833.3	832.4	832.1	832.2	832.3	832.5	832.7	833.8
177.5°	837.3	836.5	835.9	835.3	834.6	834.3	834.4	834.5	834.6	834.7	835.5
180°	835.8	835.8	835.8	835.8	835.8	835.8	835.8	835.8	835.8	835.8	835.8



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**CANDELA DISTRIBUTION (continued):**

	55°	60°	65°	70°	75°	80°	85°	90°
0°	839.2	839.2	839.2	839.2	839.2	839.2	839.2	839.2
2.5°	837.3	838.3	839.3	839.8	839.6	839.5	839.3	839.2
5°	834.7	836.1	837.7	838.3	838.0	837.9	837.7	837.6
7.5°	827.8	829.0	830.3	830.8	830.7	830.5	830.3	830.1
10°	821.2	822.4	823.7	824.3	824.1	823.9	823.7	823.6
12.5°	813.3	814.4	815.3	815.6	815.1	814.6	814.1	813.7
15°	798.6	799.7	800.8	801.0	800.3	799.5	798.8	798.0
17.5°	779.8	780.7	781.5	781.7	781.3	780.9	780.4	780.0
20°	765.4	766.0	766.5	766.8	766.8	766.8	766.8	766.8
22.5°	750.6	751.2	751.9	752.1	751.6	751.2	750.8	750.4
25°	727.1	727.9	728.6	728.5	727.5	726.7	725.7	724.8
27.5°	699.8	700.4	700.8	701.0	700.6	700.3	700.0	699.7
30°	681.1	681.5	681.8	682.0	681.8	681.6	681.4	681.2
32.5°	663.4	663.7	664.1	664.2	664.0	663.8	663.6	663.5
35°	634.6	635.2	635.7	636.0	636.0	636.0	636.0	636.0
37.5°	604.4	605.1	605.8	606.2	606.1	606.0	605.9	605.9
40°	583.9	584.7	585.4	586.0	586.3	586.7	587.1	587.4
42.5°	565.1	566.0	566.9	567.4	567.4	567.5	567.6	567.7
45°	534.9	536.1	537.4	538.1	538.4	538.5	538.7	538.9
47.5°	503.6	505.5	507.3	508.5	508.9	509.3	509.7	510.1
50°	482.8	484.9	486.9	488.1	488.7	489.3	489.8	490.4
52.5°	462.1	464.2	466.4	467.7	468.1	468.5	468.9	469.3
55°	429.4	431.4	433.4	434.7	435.5	436.3	437.0	437.7
57.5°	397.0	399.3	401.6	403.1	403.6	404.2	404.7	405.3
60°	374.9	377.6	380.4	382.0	382.5	383.1	383.7	384.2
62.5°	352.4	355.5	358.5	360.4	361.1	361.8	362.4	363.1
65°	318.9	321.7	324.4	326.1	326.9	327.6	328.4	329.1
67.5°	284.6	287.9	291.2	293.3	294.3	295.2	296.2	297.1
70°	261.2	264.7	268.2	270.4	271.5	272.6	273.7	274.8
72.5°	239.4	243.1	246.9	249.2	250.0	250.8	251.6	252.4
75°	206.4	210.1	213.7	216.0	216.9	217.9	218.7	219.7
77.5°	173.4	177.4	181.5	183.9	184.6	185.3	186.0	186.8
80°	153.7	157.7	161.7	164.1	164.9	165.6	166.3	167.0
82.5°	134.9	138.8	142.7	145.3	146.6	147.9	149.2	150.6
85°	109.2	113.3	117.3	120.0	121.5	122.9	124.5	125.9
87.5°	90.6	95.0	99.3	102.2	103.5	104.9	106.2	107.7
90°	87.1	92.1	97.0	100.2	102.0	103.6	105.4	107.0
92.5°	84.2	89.0	93.7	96.8	98.3	99.8	101.2	102.7
95°	79.4	84.1	88.8	91.8	93.1	94.3	95.6	97.0
97.5°	86.3	86.3	86.3	86.8	88.1	89.4	90.5	91.8
100°	127.1	110.4	93.8	85.7	86.3	86.8	87.3	87.9
102.5°	187.2	187.0	186.8	182.6	174.3	166.0	157.8	149.5
105°	237.2	240.8	244.5	246.9	248.0	249.1	250.3	251.4
107.5°	282.3	285.9	289.5	291.8	292.5	293.2	293.9	294.6
110°	311.2	314.3	317.3	319.6	321.0	322.4	323.8	325.2





TEST NUMBER: P333226-927

CATALOG NUMBER: S125DIP-S850D810U927-4F0-1E-UDD-D

**CANDELA DISTRIBUTION (continued):**

	55°	60°	65°	70°	75°	80°	85°	90°
112.5°	339.8	342.5	345.4	347.3	348.4	349.5	350.5	351.6
115°	383.3	386.0	388.7	390.2	390.5	390.8	391.0	391.3
117.5°	424.8	427.2	429.6	431.3	432.1	433.0	433.9	434.8
120°	451.9	454.6	457.5	459.1	459.5	459.9	460.3	460.7
122.5°	477.1	479.8	482.5	484.0	484.3	484.6	484.9	485.2
125°	514.4	516.7	519.1	520.5	521.0	521.5	522.0	522.5
127.5°	547.8	550.2	552.5	553.8	553.8	553.9	553.9	554.0
130°	570.1	572.2	574.3	575.5	575.8	576.0	576.2	576.5
132.5°	590.4	592.9	595.3	596.7	596.8	596.8	596.9	597.0
135°	619.8	621.9	624.0	625.1	625.2	625.3	625.3	625.4
137.5°	647.8	650.0	652.2	653.3	653.3	653.3	653.3	653.4
140°	664.8	667.0	669.3	670.4	670.3	670.3	670.2	670.0
142.5°	681.8	683.5	685.3	686.1	686.0	686.0	685.9	685.8
145°	706.5	707.6	708.6	709.1	709.0	708.9	708.8	708.7
147.5°	728.1	728.6	729.0	728.9	728.3	727.6	726.9	726.3
150°	742.1	742.4	742.7	742.4	741.4	740.5	739.6	738.7
152.5°	755.0	755.3	755.6	755.2	754.2	753.3	752.3	751.4
155°	772.8	773.2	773.6	773.2	772.1	771.0	769.9	768.8
157.5°	787.4	787.9	788.3	788.0	786.9	785.8	784.7	783.5
160°	796.5	797.1	797.6	797.4	796.3	795.2	794.1	793.0
162.5°	804.9	805.7	806.4	806.3	805.0	803.8	802.6	801.5
165°	815.7	816.5	817.4	817.2	816.1	815.0	813.9	812.8
167.5°	823.9	824.8	825.9	825.7	824.4	823.2	822.0	820.8
170°	828.0	829.1	830.2	830.1	828.9	827.7	826.4	825.2
172.5°	831.2	832.3	833.3	833.1	831.9	830.7	829.4	828.1
175°	834.8	835.9	837.0	836.9	835.8	834.5	833.3	832.0
177.5°	836.3	837.0	837.8	837.8	836.9	836.0	835.1	834.2
180°	835.8	835.8	835.8	835.8	835.8	835.8	835.8	835.8

(END OF REPORT)