

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: P333185-830

Luminaire Tested: **S125DIP-S610D810U830-4F0-1E-UDD-F1**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P333185-830  
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1807-864-11,  
Test Lab: INNOVATION CENTER  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: NEO-RAY  
Catalog Number: S125DIP-S610D810U830-4F0-1E-UDD-F1  
Description: DEFINE 5 DIRECT-INDIRECT PENDANT LED LUMINAIRE  
DOWNLIGHT 610 LUMENS PER FOOT, FLUSH SATIN WHITE DIFFUSER  
UPLIGHT 810 LUMENS PER FOOT, FLUSH SATIN WHITE DIFFUSER  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 5000.3 lumens  
Efficiency: N/A  
Efficacy: 130.2 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: General Diffuse

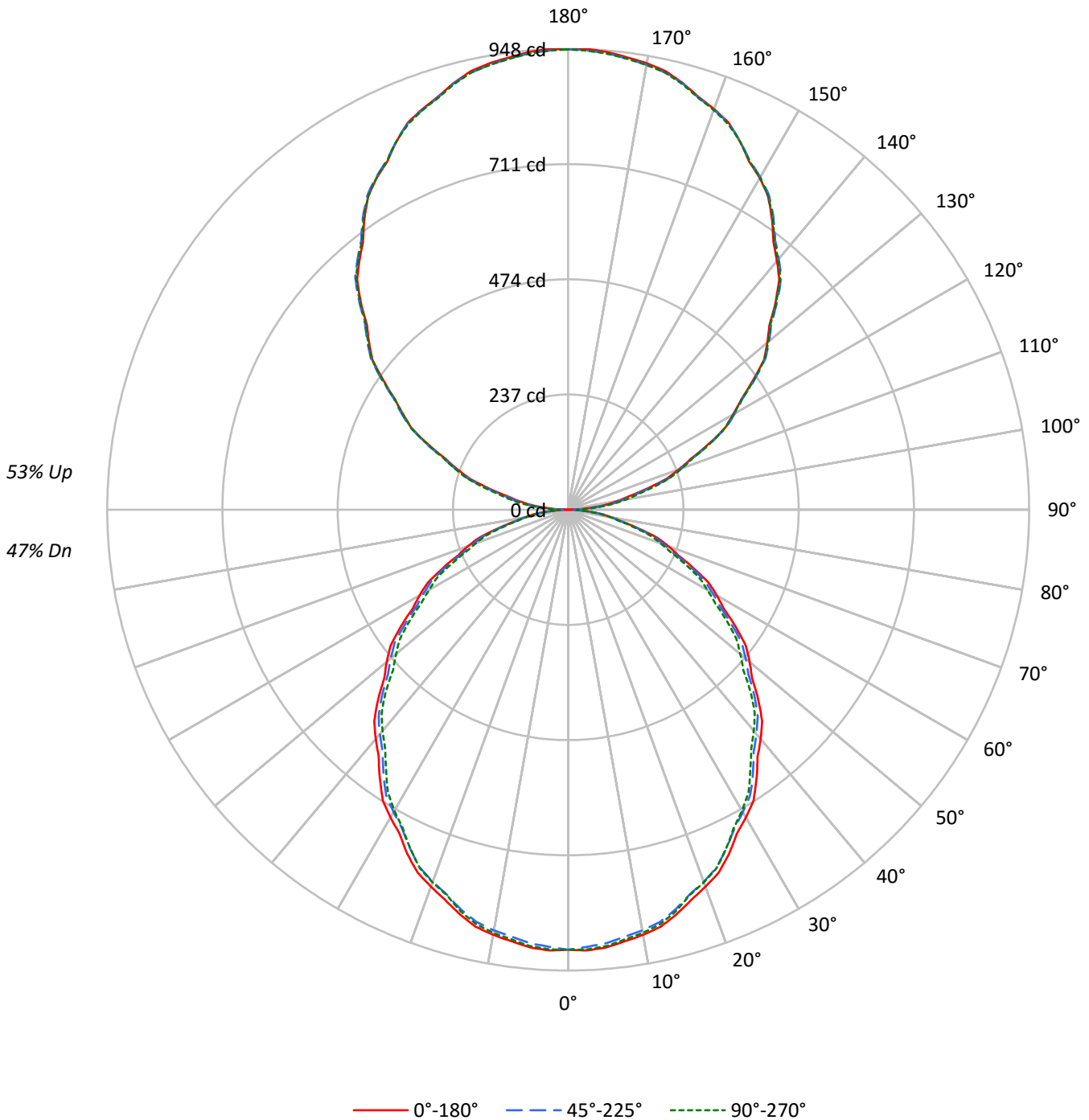
Input Watts (W): 38.4  
Input Voltage (V): 120  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



TEST NUMBER: P333185-830

CATALOG NUMBER: S125DIP-S610D810U830-4F0-1E-UDD-F1

### Luminous Intensity Polar Plot





TEST NUMBER: P333185-830

CATALOG NUMBER: S125DIP-S610D810U830-4F0-1E-UDD-F1

**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	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					47			
1	97	93	89	85	89	85	82	79	72	69	67	59	57	56	47	46	45					40				
2	88	81	75	70	81	75	69	65	63	59	55	52	49	46	41	40	38					33				
3	81	71	64	58	74	66	59	54	55	50	47	46	42	39	37	34	32					28				
4	74	63	55	49	67	58	51	46	49	44	40	41	37	34	33	30	28					24				
5	68	56	48	42	62	52	45	39	44	38	34	36	32	29	30	27	24					21				
6	62	50	42	36	57	47	39	34	39	34	30	33	29	25	27	24	21					18				
7	58	45	37	32	53	42	35	30	36	30	26	30	26	22	24	21	19					16				
8	53	41	33	28	49	38	31	26	33	27	23	27	23	20	22	19	17					15				
9	50	38	30	25	46	35	28	24	30	25	21	25	21	18	21	18	15					13				
10	46	34	27	22	43	32	26	21	28	22	19	23	19	16	19	16	14					12				

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

	0°	45°	90°
0°	5846	5846	5846
5°	5859	5803	5841
10°	5823	5762	5795
15°	5760	5693	5717
20°	5670	5597	5606
25°	5573	5481	5476
30°	5452	5357	5330
35°	5324	5222	5149
40°	5193	5078	5005
45°	5050	4945	4847
50°	4893	4786	4641
55°	4741	4604	4476
60°	4561	4421	4265
65°	4345	4202	4060
70°	4137	3950	3814
75°	3770	3646	3521
80°	3355	3303	3221
85°	2920	2971	2816



TEST NUMBER: P333185-830

CATALOG NUMBER: S125DIP-S610D810U830-4F0-1E-UDD-F1

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	85.3	1.7
10°-20°	241.1	4.8
20°-30°	356.0	7.1
30°-40°	415.4	8.3
40°-50°	417.2	8.3
50°-60°	366.2	7.3
60°-70°	272.9	5.5
70°-80°	156.0	3.1
80°-90°	47.5	0.9
90°-100°	63.4	1.3
100°-110°	187.3	3.7
110°-120°	317.3	6.3
120°-130°	417.5	8.4
130°-140°	467.9	9.4
140°-150°	458.6	9.2
150°-160°	385.1	7.7
160°-170°	256.0	5.1
170°-180°	89.6	1.8
0°-30°	682.4	13.6
0°-40°	1097.8	22.0
0°-60°	1881.2	37.6
0°-90°	2357.5	47.1
90°-120°	568.0	11.4
90°-150°	1912.0	38.2
90°-180°	2643.0	52.9
0°-180°	5000.3	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	905	905	905	905	905	
5°	904	902	895	901	901	86
15°	862	859	852	855	855	243
25°	782	778	769	770	768	360
35°	675	672	662	659	653	422
45°	553	550	541	533	531	426
55°	421	418	409	403	398	376
65°	284	282	275	269	266	282
75°	151	150	146	144	141	161
85°	39	40	40	39	38	44
90°	1	7	12	15	18	5
95°	48	50	57	62	63	51
105°	168	172	176	180	183	180
115°	318	320	322	321	321	314
125°	464	468	469	467	467	415
135°	603	607	608	608	605	465
145°	730	733	736	735	733	456
155°	836	836	836	839	836	385
165°	909	907	908	911	906	256
175°	945	942	942	946	941	90
180°	947	947	947	947	947	



TEST NUMBER: P333185-830

CATALOG NUMBER: S125DIP-S610D810U830-4F0-1E-UDD-F1

**CANDELA DISTRIBUTION (FULL):**

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	905.2	905.2	905.2	905.2	905.2	905.2	905.2	905.2	905.2	905.2	905.2
2.5°	907.5	907.1	906.7	906.3	906.0	905.1	903.9	902.6	901.4	900.0	901.4
5°	903.8	903.4	903.1	902.8	902.5	901.5	899.9	898.3	896.7	895.1	896.6
7.5°	895.4	895.1	894.8	894.5	894.2	893.2	891.4	889.7	887.9	886.2	887.5
10°	888.0	887.7	887.4	887.0	886.7	885.7	883.9	882.2	880.4	878.7	880.0
12.5°	878.8	878.3	877.7	877.1	876.6	875.4	873.8	872.2	870.5	868.9	870.0
15°	861.5	861.0	860.5	860.1	859.6	858.5	856.8	855.0	853.2	851.5	852.2
17.5°	841.6	840.9	840.2	839.5	838.8	837.5	835.8	833.9	832.1	830.3	831.2
20°	825.0	824.6	824.3	824.1	823.7	822.6	820.5	818.4	816.3	814.3	815.4
22.5°	808.3	807.8	807.2	806.6	806.1	804.8	802.9	801.0	799.0	797.0	797.8
25°	782.0	781.2	780.4	779.7	778.8	777.4	775.3	773.3	771.2	769.1	769.5
27.5°	751.2	750.7	750.3	749.8	749.3	748.0	745.8	743.8	741.6	739.5	739.5
30°	731.1	730.7	730.2	729.7	729.2	727.8	725.5	723.0	720.7	718.3	717.9
32.5°	709.4	708.7	707.9	707.2	706.4	705.0	702.9	700.8	698.6	696.5	696.0
35°	675.3	674.7	674.0	673.4	672.8	671.4	669.1	666.8	664.7	662.4	661.7
37.5°	639.9	639.1	638.4	637.5	636.8	635.3	633.2	631.1	629.0	626.9	625.8
40°	615.9	615.1	614.3	613.5	612.7	611.1	609.0	606.7	604.5	602.3	600.9
42.5°	590.1	589.5	588.7	588.1	587.4	586.0	583.7	581.5	579.3	577.0	575.8
45°	552.9	552.2	551.6	550.9	550.4	549.0	547.1	545.3	543.3	541.4	539.5
47.5°	512.7	512.7	512.8	512.8	512.8	511.7	509.4	507.2	504.9	502.6	500.7
50°	487.0	486.4	486.0	485.5	485.0	483.9	481.9	480.0	478.2	476.3	474.2
52.5°	460.6	460.2	460.0	459.6	459.2	458.0	456.0	453.9	451.9	449.9	448.1
55°	421.1	420.6	420.1	419.6	419.1	417.8	415.6	413.4	411.1	408.9	407.5
57.5°	379.4	379.2	378.9	378.6	378.4	377.3	375.4	373.5	371.6	369.9	368.0
60°	353.1	352.4	351.8	351.1	350.5	349.3	347.6	345.8	344.0	342.3	340.7
62.5°	325.6	325.1	324.5	324.0	323.5	322.5	321.0	319.5	318.0	316.5	314.8
65°	284.3	284.0	283.7	283.3	283.0	282.0	280.2	278.5	276.7	275.0	273.5
67.5°	244.3	243.6	243.0	242.3	241.7	240.7	239.4	238.1	236.8	235.4	234.2
70°	219.1	218.4	217.5	216.8	215.9	214.8	213.4	212.0	210.6	209.2	208.1
72.5°	191.6	191.1	190.6	190.0	189.5	188.7	187.8	186.9	186.0	185.0	184.0
75°	151.1	150.8	150.4	150.1	149.9	149.3	148.5	147.7	146.8	146.1	145.6
77.5°	113.8	113.6	113.5	113.3	113.2	112.9	112.4	112.1	111.6	111.1	110.8
80°	90.2	90.2	90.2	90.2	90.2	90.1	89.7	89.4	89.2	88.8	88.6
82.5°	69.7	69.4	69.1	68.8	68.6	68.4	68.3	68.3	68.2	68.1	67.9
85°	39.4	39.6	39.7	39.9	40.1	40.1	40.1	40.1	40.1	40.1	40.0
87.5°	15.6	15.8	16.1	16.4	16.7	16.9	17.0	17.1	17.2	17.2	17.4
90°	0.8	2.1	3.4	4.7	5.9	7.2	8.4	9.5	10.7	11.8	12.6
92.5°	17.8	18.8	19.7	20.5	21.5	22.6	24.0	25.4	26.9	28.3	29.4
95°	47.9	48.3	48.5	48.9	49.2	50.2	51.8	53.4	55.1	56.7	57.9
97.5°	79.6	79.7	79.8	80.0	80.1	81.3	83.6	85.9	88.1	90.4	91.4
100°	103.2	103.2	103.2	103.2	103.2	104.2	106.4	108.5	110.7	112.7	114.2
102.5°	128.6	129.2	129.9	130.5	131.2	132.1	133.1	134.2	135.3	136.4	138.0
105°	168.1	168.9	169.7	170.5	171.4	172.2	173.2	174.2	175.1	176.2	177.1
107.5°	211.7	212.4	213.3	214.1	215.0	215.7	216.5	217.3	218.0	218.8	219.2
110°	241.8	242.6	243.4	244.2	245.1	245.7	246.2	246.7	247.1	247.6	248.2



TEST NUMBER: P333185-830

CATALOG NUMBER: S125DIP-S610D810U830-4F0-1E-UDD-F1

**CANDELA DISTRIBUTION (continued):**

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	272.4	272.9	273.2	273.7	274.1	274.7	275.2	275.9	276.5	277.1	277.4
115°	317.6	318.3	319.0	319.6	320.3	320.7	321.1	321.4	321.8	322.1	321.9
117.5°	363.1	363.4	363.6	363.9	364.2	364.6	364.9	365.1	365.4	365.7	365.8
120°	391.3	392.2	393.0	393.8	394.6	395.1	395.3	395.5	395.6	395.8	395.8
122.5°	422.0	422.4	422.6	422.9	423.2	423.6	424.0	424.4	424.8	425.3	425.1
125°	463.5	464.6	465.5	466.6	467.5	468.1	468.3	468.4	468.5	468.7	468.4
127.5°	507.8	508.4	508.9	509.4	510.0	510.4	510.6	510.8	511.0	511.2	511.0
130°	534.3	535.2	536.0	536.8	537.6	538.2	538.5	538.9	539.1	539.5	539.3
132.5°	560.9	562.2	563.5	564.9	566.3	566.8	566.8	566.8	566.7	566.7	566.5
135°	602.9	603.9	604.8	605.9	606.8	607.4	607.6	607.8	607.8	608.0	608.0
137.5°	642.4	643.4	644.3	645.3	646.2	646.9	647.2	647.5	647.9	648.3	648.5
140°	667.8	668.5	669.4	670.2	671.0	671.7	672.1	672.7	673.2	673.6	674.0
142.5°	693.1	693.8	694.5	695.1	695.9	696.5	697.1	697.8	698.3	699.0	699.2
145°	730.4	731.0	731.7	732.4	733.0	733.6	734.1	734.5	735.1	735.6	735.6
147.5°	764.9	765.3	765.6	766.0	766.3	766.7	767.1	767.5	767.9	768.3	768.6
150°	787.9	787.7	787.6	787.4	787.2	787.5	788.2	788.8	789.5	790.1	790.1
152.5°	806.7	807.0	807.2	807.5	807.7	807.9	808.1	808.4	808.7	809.0	809.4
155°	835.8	835.8	835.8	835.8	835.8	835.8	836.0	836.2	836.3	836.5	837.2
157.5°	861.8	861.4	861.0	860.6	860.3	860.2	860.4	860.5	860.6	860.8	861.5
160°	877.0	876.6	876.1	875.6	875.1	875.0	875.1	875.2	875.4	875.6	876.3
162.5°	890.6	890.2	889.9	889.6	889.2	889.0	889.0	889.1	889.1	889.2	889.9
165°	908.8	908.4	908.1	907.8	907.5	907.4	907.5	907.7	907.9	908.0	908.7
167.5°	924.1	923.4	922.7	922.1	921.4	921.1	921.1	921.1	921.1	921.1	922.1
170°	932.4	931.7	931.0	930.4	929.7	929.3	929.3	929.3	929.3	929.3	930.4
172.5°	938.2	937.5	936.9	936.2	935.6	935.3	935.3	935.3	935.3	935.3	936.2
175°	944.9	944.2	943.6	942.9	942.3	941.9	941.9	941.9	941.9	941.9	942.9
177.5°	948.3	947.7	947.3	946.7	946.1	945.8	945.7	945.6	945.5	945.3	946.1
180°	947.1	947.1	947.1	947.1	947.1	947.1	947.1	947.1	947.1	947.1	947.1



TEST NUMBER: P333185-830

CATALOG NUMBER: S125DIP-S610D810U830-4F0-1E-UDD-F1

**CANDELA DISTRIBUTION (continued):**

	55°	60°	65°	70°	75°	80°	85°	90°
0°	905.2	905.2	905.2	905.2	905.2	905.2	905.2	905.2
2.5°	902.6	903.9	905.1	905.7	905.6	905.4	905.3	905.2
5°	898.1	899.5	900.9	901.5	901.4	901.3	901.1	900.9
7.5°	888.9	890.3	891.7	892.4	892.2	892.0	891.9	891.7
10°	881.3	882.5	883.8	884.4	884.2	884.0	883.8	883.7
12.5°	871.0	872.0	873.0	873.5	873.5	873.5	873.5	873.4
15°	853.1	853.8	854.7	855.1	855.1	855.1	855.1	855.1
17.5°	832.3	833.2	834.2	834.3	833.5	832.7	832.0	831.1
20°	816.4	817.6	818.7	818.9	818.0	817.3	816.4	815.7
22.5°	798.5	799.3	800.0	800.1	799.6	799.0	798.4	798.0
25°	769.8	770.1	770.4	770.3	769.9	769.4	768.9	768.5
27.5°	739.6	739.7	739.7	739.5	739.0	738.6	738.1	737.6
30°	717.7	717.4	717.0	716.6	716.1	715.7	715.2	714.7
32.5°	695.4	694.7	694.2	693.5	692.7	691.8	690.9	690.0
35°	660.8	660.1	659.2	658.2	657.0	655.6	654.4	653.1
37.5°	624.5	623.4	622.2	621.2	620.5	619.8	619.1	618.3
40°	599.4	597.9	596.5	595.6	595.1	594.7	594.2	593.7
42.5°	574.5	573.2	571.8	570.8	570.0	569.4	568.6	567.9
45°	537.5	535.6	533.8	532.5	532.1	531.6	531.1	530.7
47.5°	498.7	496.7	494.8	493.3	492.2	491.1	489.9	488.8
50°	472.1	470.0	468.0	466.4	465.2	464.1	463.0	461.9
52.5°	446.2	444.4	442.6	441.1	439.9	438.6	437.3	436.1
55°	406.0	404.6	403.2	401.9	400.8	399.6	398.6	397.5
57.5°	366.1	364.3	362.4	361.2	360.6	360.0	359.4	358.8
60°	339.1	337.5	335.9	334.6	333.5	332.3	331.2	330.2
62.5°	313.1	311.4	309.6	308.4	307.6	306.6	305.8	304.9
65°	272.1	270.7	269.3	268.2	267.6	266.9	266.4	265.7
67.5°	233.1	231.9	230.6	229.8	229.4	229.0	228.7	228.3
70°	207.2	206.2	205.3	204.5	203.9	203.2	202.6	202.0
72.5°	182.9	181.8	180.7	179.8	179.2	178.6	178.0	177.3
75°	145.2	144.7	144.2	143.6	143.0	142.3	141.8	141.1
77.5°	110.6	110.3	110.0	109.6	109.1	108.8	108.3	107.8
80°	88.5	88.3	88.1	87.9	87.6	87.3	87.0	86.6
82.5°	67.6	67.3	67.0	66.8	66.8	66.7	66.6	66.6
85°	39.8	39.6	39.5	39.2	38.9	38.5	38.3	38.0
87.5°	17.6	17.7	17.9	17.9	17.7	17.6	17.4	17.2
90°	13.4	14.2	15.1	15.7	16.2	16.7	17.2	17.7
92.5°	30.4	31.6	32.6	33.4	33.7	34.0	34.4	34.8
95°	59.0	60.2	61.4	62.1	62.4	62.8	63.1	63.3
97.5°	92.6	93.6	94.7	95.3	95.5	95.7	96.0	96.1
100°	115.7	117.2	118.7	119.6	119.9	120.2	120.6	120.8
102.5°	139.6	141.2	142.8	143.8	144.3	144.7	145.2	145.6
105°	178.1	179.1	180.1	180.8	181.3	181.8	182.3	182.8
107.5°	219.7	220.2	220.7	220.9	220.9	220.8	220.8	220.8
110°	248.6	249.1	249.6	249.8	249.6	249.4	249.3	249.1





TEST NUMBER: P333185-830

CATALOG NUMBER: S125DIP-S610D810U830-4F0-1E-UDD-F1

**CANDELA DISTRIBUTION (continued):**

	55°	60°	65°	70°	75°	80°	85°	90°
112.5°	277.6	277.8	278.1	278.1	277.7	277.4	277.1	276.8
115°	321.8	321.6	321.4	321.2	321.1	320.9	320.7	320.7
117.5°	366.0	366.1	366.3	366.0	365.3	364.7	364.0	363.4
120°	395.8	395.8	395.8	395.5	394.8	394.2	393.5	392.9
122.5°	425.0	424.9	424.7	424.4	423.9	423.4	422.8	422.4
125°	468.1	467.8	467.4	467.2	467.0	466.8	466.7	466.6
127.5°	510.9	510.7	510.6	510.3	510.0	509.6	509.3	509.0
130°	539.1	539.0	538.9	538.6	538.3	537.9	537.6	537.2
132.5°	566.3	566.1	566.0	565.6	565.2	564.8	564.3	563.8
135°	608.0	608.0	608.0	607.8	607.1	606.4	605.8	605.1
137.5°	648.7	648.8	649.0	648.8	647.9	647.1	646.3	645.5
140°	674.3	674.6	675.0	674.7	673.9	673.1	672.2	671.5
142.5°	699.4	699.6	699.7	699.5	698.6	697.9	697.0	696.2
145°	735.6	735.6	735.6	735.3	734.8	734.3	733.9	733.3
147.5°	769.0	769.5	769.9	769.5	768.4	767.2	766.2	765.1
150°	790.1	790.1	790.1	789.9	789.6	789.3	788.9	788.6
152.5°	809.7	810.1	810.5	810.4	809.8	809.3	808.7	808.0
155°	837.8	838.5	839.1	839.1	838.2	837.4	836.6	835.8
157.5°	862.1	862.8	863.5	863.3	862.1	861.1	860.0	858.9
160°	876.9	877.5	878.2	878.2	877.3	876.5	875.6	874.9
162.5°	890.7	891.6	892.3	892.2	891.3	890.3	889.4	888.4
165°	909.4	910.0	910.6	910.5	909.5	908.5	907.5	906.5
167.5°	923.1	924.1	925.1	925.0	924.1	923.0	922.0	921.0
170°	931.3	932.4	933.3	933.2	932.1	930.9	929.8	928.7
172.5°	937.3	938.2	939.2	939.2	938.2	937.2	936.1	935.1
175°	943.9	944.9	945.8	945.7	944.6	943.5	942.4	941.2
177.5°	946.9	947.6	948.5	948.4	947.4	946.6	945.7	944.7
180°	947.1	947.1	947.1	947.1	947.1	947.1	947.1	947.1

(END OF REPORT)