

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: P333186

Luminaire Tested: **S125DIP-S610D810U835-4F0-1E-UDD-F4**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P333186  
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-S610D810U835-4F0-1E-UDD-F4  
Description: DEFINE 5 DIRECT-INDIRECT PENDANT LED LUMINAIRE  
DOWNLIGHT 610 LUMENS PER FOOT, FLUSH SATIN WHITE DIFFUSER  
UPLIGHT 810 LUMENS PER FOOT, BATWING OPTIC  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 5409.5 lumens  
Efficiency: N/A  
Efficacy: 140.9 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

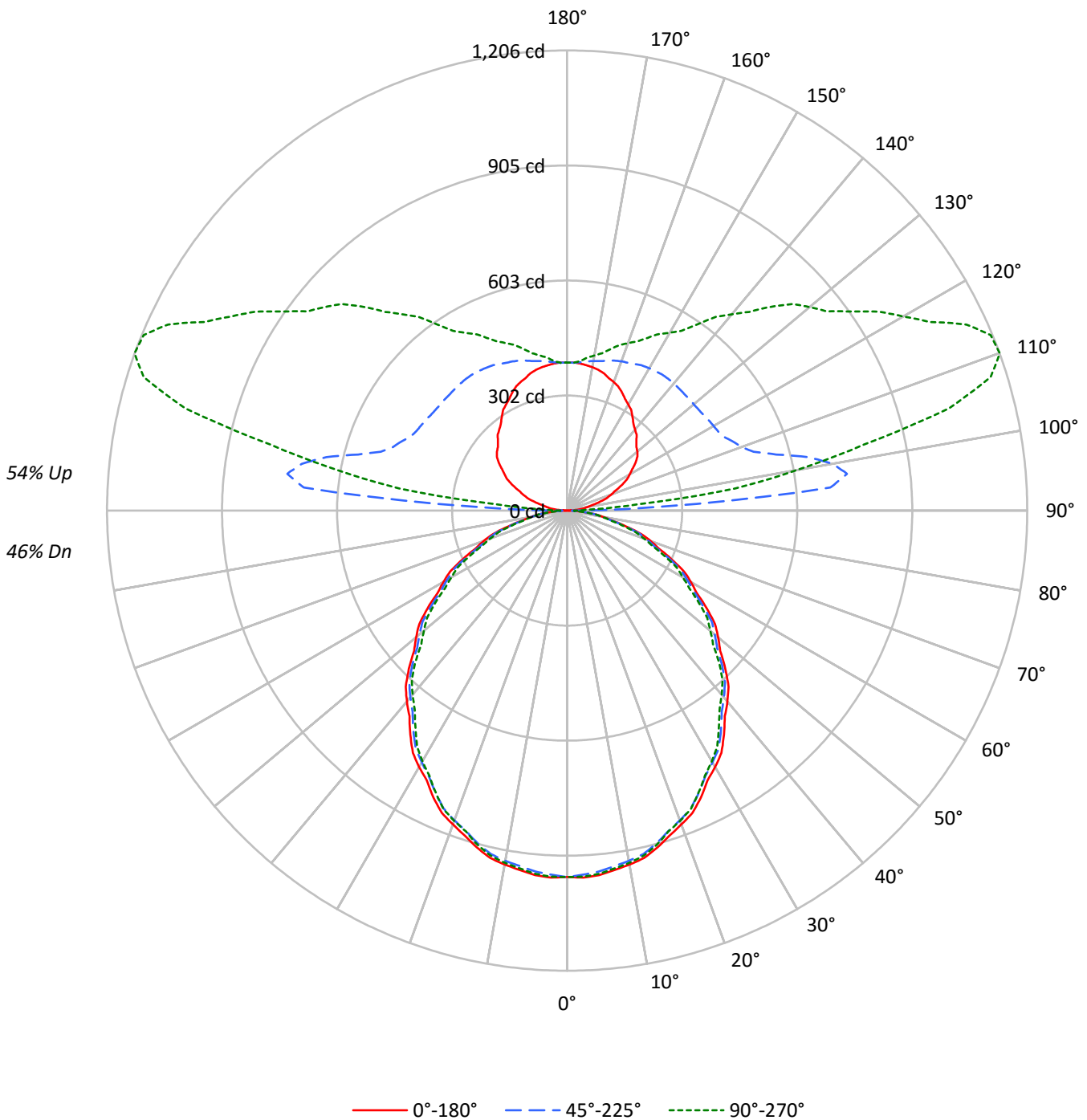
Input Watts (W): 38.4  
Input Voltage (V): 120  
Input Current (A<sub>in</sub>): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



TEST NUMBER: P333186

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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	81	81	81	66	66	66	53	53	53	46
1	97	93	89	85	89	85	82	79	71	69	67	58	57	55	46	45	44	39
2	88	81	75	69	81	74	69	65	62	58	55	51	48	46	41	39	37	32
3	80	71	64	58	73	65	59	54	55	50	46	45	42	39	36	34	32	27
4	74	63	55	49	67	58	51	46	49	43	39	40	36	33	32	30	27	24
5	67	56	48	42	62	52	44	39	44	38	34	36	32	29	29	26	24	20
6	62	50	42	36	57	46	39	34	39	34	30	33	28	25	26	23	21	18
7	57	45	37	32	53	42	35	30	36	30	26	30	25	22	24	21	19	16
8	53	41	33	28	49	38	31	26	32	27	23	27	23	20	22	19	17	14
9	50	37	30	25	45	35	28	23	30	24	21	25	21	18	20	17	15	13
10	46	34	27	22	42	32	25	21	27	22	19	23	19	16	19	16	14	12

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

	0°	45°	90°
0°	6203	6203	6203
5°	6217	6157	6196
10°	6178	6114	6149
15°	6111	6040	6066
20°	6016	5937	5948
25°	5912	5815	5810
30°	5785	5683	5655
35°	5649	5541	5463
40°	5509	5387	5311
45°	5358	5246	5142
50°	5191	5077	4924
55°	5031	4884	4748
60°	4839	4691	4525
65°	4609	4459	4308
70°	4390	4190	4047
75°	4000	3868	3735
80°	3559	3503	3418
85°	3097	3149	2986



TEST NUMBER: P333186

CATALOG NUMBER: S125DIP-S610D810U835-4F0-1E-UDD-F4

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	90.6	1.7
10°-20°	255.8	4.7
20°-30°	377.7	7.0
30°-40°	440.7	8.1
40°-50°	442.6	8.2
50°-60°	388.5	7.2
60°-70°	289.5	5.4
70°-80°	165.5	3.1
80°-90°	50.3	0.9
90°-100°	281.1	5.2
100°-110°	604.3	11.2
110°-120°	567.1	10.5
120°-130°	459.6	8.5
130°-140°	368.8	6.8
140°-150°	278.3	5.1
150°-160°	195.9	3.6
160°-170°	115.5	2.1
170°-180°	37.6	0.7
0°-30°	724.0	13.4
0°-40°	1164.7	21.5
0°-60°	1995.9	36.9
0°-90°	2501.2	46.2
90°-120°	1452.5	26.9
90°-150°	2559.3	47.3
90°-180°	2908.0	53.8
0°-180°	5409.5	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	960	960	960	960	960	
5°	959	957	950	956	956	91
15°	914	911	903	907	907	257
25°	830	826	816	817	815	382
35°	716	713	703	699	693	448
45°	587	583	574	566	563	452
55°	447	444	434	427	422	399
65°	302	300	292	285	282	299
75°	160	159	155	153	150	171
85°	42	42	42	42	40	47
90°	1	7	12	16	18	4
95°	26	76	693	314	184	27
105°	88	124	567	1116	1036	93
115°	158	190	455	981	1154	155
125°	219	256	436	780	909	194
135°	256	308	433	654	755	199
145°	299	342	435	541	596	187
155°	341	367	424	479	500	157
165°	372	382	407	431	438	105
175°	387	387	390	395	393	37
180°	388	388	388	388	388	



TEST NUMBER: P333186

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**CANDELA DISTRIBUTION (FULL):**

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	960.4	960.4	960.4	960.4	960.4	960.4	960.4	960.4	960.4	960.4	960.4
2.5°	962.8	962.4	962.0	961.6	961.2	960.3	959.0	957.6	956.3	954.9	956.3
5°	958.9	958.5	958.2	957.8	957.5	956.5	954.8	953.1	951.4	949.7	951.3
7.5°	950.0	949.7	949.4	949.0	948.7	947.6	945.7	943.9	942.0	940.2	941.6
10°	942.1	941.8	941.5	941.1	940.8	939.7	937.8	936.0	934.1	932.3	933.6
12.5°	932.4	931.8	931.2	930.6	930.0	928.8	927.1	925.4	923.6	921.9	923.0
15°	914.0	913.5	913.0	912.5	912.0	910.8	909.0	907.1	905.2	903.4	904.2
17.5°	892.9	892.2	891.4	890.7	889.9	888.6	886.7	884.7	882.8	880.9	881.9
20°	875.3	874.9	874.6	874.3	873.9	872.7	870.5	868.3	866.1	863.9	865.1
22.5°	857.6	857.0	856.4	855.8	855.2	853.9	851.8	849.8	847.7	845.6	846.4
25°	829.7	828.8	828.0	827.2	826.3	824.8	822.6	820.4	818.2	816.0	816.4
27.5°	797.0	796.5	796.0	795.5	795.0	793.6	791.3	789.1	786.8	784.6	784.6
30°	775.7	775.2	774.7	774.2	773.7	772.2	769.7	767.1	764.6	762.1	761.7
32.5°	752.6	751.9	751.1	750.3	749.5	748.0	745.8	743.5	741.2	739.0	738.4
35°	716.5	715.8	715.1	714.5	713.8	712.3	709.9	707.5	705.2	702.8	702.0
37.5°	678.9	678.1	677.3	676.4	675.6	674.0	671.8	669.6	667.3	665.1	663.9
40°	653.4	652.6	651.7	650.9	650.0	648.4	646.1	643.7	641.3	639.0	637.5
42.5°	626.1	625.4	624.6	623.9	623.2	621.7	619.3	617.0	614.6	612.2	610.9
45°	586.6	585.9	585.2	584.5	583.9	582.5	580.5	578.5	576.4	574.4	572.4
47.5°	544.0	544.0	544.1	544.1	544.1	542.9	540.5	538.1	535.7	533.2	531.2
50°	516.7	516.1	515.6	515.1	514.6	513.4	511.3	509.3	507.3	505.3	503.1
52.5°	488.7	488.3	488.0	487.6	487.2	485.9	483.8	481.6	479.5	477.3	475.4
55°	446.8	446.2	445.7	445.2	444.7	443.3	440.9	438.6	436.2	433.8	432.3
57.5°	402.5	402.3	402.0	401.7	401.5	400.3	398.3	396.3	394.3	392.4	390.4
60°	374.6	373.9	373.2	372.5	371.9	370.6	368.8	366.9	365.0	363.2	361.5
62.5°	345.4	344.9	344.3	343.8	343.2	342.2	340.6	339.0	337.4	335.8	334.0
65°	301.6	301.3	301.0	300.6	300.3	299.2	297.3	295.5	293.6	291.8	290.2
67.5°	259.2	258.5	257.8	257.1	256.4	255.4	254.0	252.6	251.2	249.8	248.5
70°	232.5	231.7	230.8	230.0	229.1	227.9	226.4	224.9	223.4	221.9	220.8
72.5°	203.3	202.7	202.2	201.6	201.0	200.2	199.3	198.3	197.3	196.3	195.2
75°	160.3	160.0	159.6	159.3	159.0	158.4	157.5	156.7	155.8	155.0	154.5
77.5°	120.7	120.5	120.4	120.2	120.1	119.8	119.3	118.9	118.4	117.9	117.6
80°	95.7	95.7	95.7	95.7	95.7	95.6	95.2	94.9	94.6	94.2	94.0
82.5°	73.9	73.6	73.3	73.0	72.8	72.6	72.5	72.5	72.4	72.3	72.0
85°	41.8	42.0	42.1	42.3	42.5	42.5	42.5	42.5	42.5	42.5	42.4
87.5°	16.6	16.7	17.0	17.3	17.7	17.9	17.9	18.1	18.1	18.3	18.5
90°	0.8	1.6	3.1	4.7	6.3	7.8	8.6	10.2	10.9	12.5	13.3
92.5°	9.5	11.6	18.1	27.8	41.3	64.1	106.8	178.4	256.1	252.1	204.1
95°	25.8	26.6	32.8	41.4	58.6	93.8	177.5	349.5	565.3	692.8	677.9
97.5°	42.8	43.8	48.2	56.8	72.2	97.6	152.9	279.0	504.8	739.8	857.7
100°	54.7	56.3	59.4	68.0	82.9	106.3	151.7	253.3	450.4	706.1	901.5
102.5°	67.9	68.8	71.3	80.5	94.1	117.0	157.3	242.7	409.1	646.6	875.3
105°	88.4	88.4	92.3	100.1	112.6	134.5	168.9	238.5	369.1	566.9	791.3
107.5°	108.4	109.9	113.7	120.1	133.1	152.8	186.1	245.7	352.2	512.0	705.6
110°	122.8	124.3	127.4	134.5	146.2	166.5	198.6	252.6	347.2	486.3	656.8



TEST NUMBER: P333186

CATALOG NUMBER: S125DIP-S610D810U835-4F0-1E-UDD-F4

**CANDELA DISTRIBUTION (continued):**

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	137.1	138.7	141.2	148.2	160.0	179.7	210.5	261.3	347.2	471.3	620.5
115°	157.9	159.5	161.9	168.9	180.6	200.2	229.1	274.4	349.5	455.1	580.9
117.5°	176.7	179.1	181.6	188.6	201.9	220.8	248.2	289.5	354.7	447.1	557.3
120°	189.2	191.6	194.7	201.7	215.0	234.6	261.9	299.5	359.7	443.3	544.2
122.5°	202.4	204.1	206.6	213.6	228.2	247.7	275.1	310.7	364.0	440.2	532.9
125°	218.9	220.5	224.4	231.4	246.3	266.6	292.4	326.0	371.4	436.3	517.6
127.5°	231.9	234.3	239.3	248.2	264.0	284.3	309.2	340.1	379.7	434.4	503.5
130°	240.0	242.4	248.6	258.8	275.2	295.6	319.8	349.5	384.7	433.2	494.2
132.5°	246.3	249.3	256.8	268.2	285.2	305.6	329.8	357.6	390.3	433.2	486.7
135°	256.5	259.6	269.0	281.5	297.9	319.0	343.3	369.1	398.0	433.2	477.7
137.5°	269.3	271.6	280.4	292.9	309.0	330.7	352.8	377.5	405.0	434.1	469.8
140°	276.8	279.1	288.5	301.0	315.9	337.0	359.7	383.1	408.1	434.7	466.0
142.5°	285.5	287.3	296.0	308.5	322.8	342.6	364.0	386.3	410.0	435.4	462.9
145°	298.7	300.2	308.1	319.0	333.1	351.1	371.4	390.9	412.1	434.7	458.2
147.5°	312.4	313.4	320.1	330.3	342.5	358.3	376.1	393.8	412.8	432.7	453.3
150°	320.6	322.1	327.6	337.8	348.7	362.0	379.2	395.6	412.8	430.8	449.6
152.5°	329.3	330.3	335.1	344.0	354.4	366.4	382.3	396.9	412.2	428.3	445.2
155°	340.9	340.9	345.6	353.4	361.2	372.2	385.5	398.0	410.5	423.8	437.9
157.5°	351.2	351.1	354.8	361.5	368.4	376.7	388.1	398.8	408.5	419.1	431.0
160°	358.1	357.3	360.5	365.9	372.2	379.2	389.4	398.8	406.6	416.0	425.4
162.5°	363.7	363.0	366.1	370.9	375.9	381.7	390.6	398.1	404.7	412.2	420.3
165°	372.2	370.6	373.0	376.9	380.0	384.7	390.9	397.2	401.9	406.6	412.8
167.5°	377.8	377.0	378.4	380.6	382.8	385.8	390.9	395.3	397.5	401.1	405.5
170°	381.6	380.8	381.6	383.1	384.7	387.0	390.9	394.1	395.6	398.0	401.1
172.5°	384.1	382.7	383.4	385.0	385.9	387.0	390.3	392.8	393.1	394.2	396.7
175°	387.0	385.5	386.3	387.0	387.0	387.0	389.4	390.9	390.2	390.2	390.9
177.5°	388.4	387.2	387.2	387.8	387.2	387.2	388.4	389.1	387.8	387.8	388.4
180°	387.8	387.8	387.8	387.8	387.8	387.8	387.8	387.8	387.8	387.8	387.8



TEST NUMBER: P333186

CATALOG NUMBER: S125DIP-S610D810U835-4F0-1E-UDD-F4

**CANDELA DISTRIBUTION (continued):**

	55°	60°	65°	70°	75°	80°	85°	90°
0°	960.4	960.4	960.4	960.4	960.4	960.4	960.4	960.4
2.5°	957.6	959.0	960.3	960.9	960.8	960.6	960.5	960.4
5°	952.8	954.3	955.8	956.5	956.3	956.2	956.0	955.8
7.5°	943.1	944.6	946.1	946.8	946.6	946.4	946.3	946.1
10°	935.0	936.3	937.7	938.3	938.1	937.9	937.7	937.6
12.5°	924.1	925.2	926.2	926.8	926.7	926.7	926.7	926.6
15°	905.1	905.9	906.8	907.2	907.2	907.2	907.2	907.2
17.5°	883.0	884.0	885.1	885.2	884.3	883.5	882.7	881.8
20°	866.2	867.4	868.6	868.8	867.9	867.1	866.2	865.4
22.5°	847.2	848.0	848.8	848.9	848.3	847.7	847.1	846.6
25°	816.7	817.0	817.4	817.3	816.8	816.3	815.8	815.3
27.5°	784.7	784.8	784.8	784.6	784.1	783.6	783.1	782.6
30°	761.4	761.1	760.7	760.3	759.8	759.3	758.8	758.3
32.5°	737.8	737.1	736.5	735.8	734.9	734.0	733.0	732.1
35°	701.1	700.3	699.4	698.3	697.0	695.6	694.3	692.9
37.5°	662.6	661.4	660.1	659.1	658.3	657.6	656.8	656.0
40°	635.9	634.4	632.9	631.9	631.4	630.9	630.4	629.9
42.5°	609.5	608.1	606.7	605.6	604.8	604.1	603.3	602.5
45°	570.3	568.3	566.3	565.0	564.5	564.0	563.5	563.0
47.5°	529.1	527.0	525.0	523.4	522.2	521.0	519.8	518.6
50°	500.9	498.7	496.5	494.8	493.6	492.4	491.2	490.1
52.5°	473.4	471.5	469.6	468.0	466.7	465.3	464.0	462.7
55°	430.8	429.3	427.8	426.4	425.2	424.0	422.9	421.7
57.5°	388.4	386.5	384.5	383.2	382.6	381.9	381.3	380.7
60°	359.8	358.1	356.4	355.0	353.8	352.6	351.4	350.3
62.5°	332.2	330.4	328.5	327.2	326.3	325.3	324.4	323.5
65°	288.7	287.2	285.7	284.6	283.9	283.2	282.6	281.9
67.5°	247.3	246.0	244.7	243.8	243.4	243.0	242.6	242.2
70°	219.8	218.8	217.8	217.0	216.3	215.6	214.9	214.3
72.5°	194.0	192.9	191.7	190.8	190.1	189.5	188.8	188.1
75°	154.0	153.5	153.0	152.4	151.7	151.0	150.4	149.7
77.5°	117.3	117.0	116.7	116.3	115.8	115.4	114.9	114.4
80°	93.9	93.7	93.5	93.3	92.9	92.6	92.3	91.9
82.5°	71.7	71.4	71.1	70.9	70.9	70.8	70.7	70.7
85°	42.2	42.0	41.9	41.6	41.3	40.9	40.6	40.3
87.5°	18.6	18.8	18.9	19.1	18.8	18.6	18.5	18.2
90°	14.1	14.9	15.6	17.2	17.2	17.2	18.0	18.0
92.5°	138.6	100.6	75.7	64.1	54.1	52.2	51.1	49.9
95°	562.2	443.3	347.2	281.5	226.0	202.5	196.3	183.7
97.5°	837.3	753.9	660.2	568.9	520.6	476.8	454.1	444.1
100°	961.7	923.4	842.9	761.6	707.6	651.3	622.4	609.9
102.5°	1003.6	1027.3	988.6	933.6	875.9	835.8	804.4	795.0
105°	978.9	1086.1	1120.5	1111.9	1086.8	1061.0	1045.4	1036.0
107.5°	890.7	1033.7	1122.0	1162.8	1175.5	1175.3	1170.2	1163.9
110°	825.7	974.2	1084.5	1150.9	1186.1	1201.0	1206.5	1206.5





TEST NUMBER: P333186

CATALOG NUMBER: S125DIP-S610D810U835-4F0-1E-UDD-F4

**CANDELA DISTRIBUTION (continued):**

	55°	60°	65°	70°	75°	80°	85°	90°
112.5°	774.4	915.4	1026.9	1105.3	1156.7	1182.2	1195.8	1201.5
115°	710.0	831.2	938.3	1023.5	1084.5	1122.0	1143.9	1154.1
117.5°	668.4	772.8	865.1	943.3	1004.3	1043.0	1064.8	1071.0
120°	645.8	739.7	825.7	894.5	952.3	989.9	1011.0	1017.2
122.5°	629.0	715.9	792.5	857.0	908.6	943.0	964.1	969.7
125°	604.4	684.2	752.2	808.5	852.3	884.3	901.5	909.3
127.5°	579.4	653.8	717.3	770.0	809.7	838.0	854.3	857.7
130°	563.7	632.6	693.5	744.4	783.5	809.3	824.9	829.6
132.5°	548.1	612.5	667.9	716.8	755.9	781.7	796.1	801.4
135°	527.8	581.7	631.8	676.3	710.7	736.5	750.6	755.3
137.5°	510.6	554.2	595.8	633.6	664.5	687.9	700.9	706.1
140°	501.2	537.9	573.9	606.7	635.7	656.0	667.7	671.6
142.5°	493.1	524.2	555.1	583.6	608.2	625.4	636.5	639.7
145°	482.4	506.7	530.9	552.0	570.8	584.1	592.7	595.8
147.5°	472.4	492.1	510.7	526.7	541.5	552.2	557.2	558.6
150°	466.8	484.0	498.8	512.9	524.7	534.0	537.2	537.9
152.5°	460.5	475.9	489.5	500.4	510.3	517.8	520.9	521.7
155°	451.2	463.7	474.6	483.2	491.0	496.5	498.8	499.6
157.5°	441.8	452.1	460.5	467.3	473.4	477.9	480.1	479.9
160°	435.5	443.3	451.2	456.6	462.1	466.0	467.6	466.8
162.5°	428.6	435.8	442.4	447.2	451.5	454.7	455.1	454.9
165°	419.1	424.6	429.3	433.2	436.3	437.9	437.9	437.9
167.5°	410.0	413.6	417.2	420.0	421.6	423.0	422.4	422.2
170°	405.0	407.4	409.7	411.3	412.8	413.6	413.6	412.8
172.5°	399.4	401.7	403.5	404.4	404.7	406.1	404.9	404.1
175°	393.3	393.3	394.9	394.9	394.9	395.6	394.1	393.3
177.5°	389.1	389.7	389.7	389.7	389.1	389.7	387.8	387.8
180°	387.8	387.8	387.8	387.8	387.8	387.8	387.8	387.8

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