

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: P333221-935

Luminaire Tested: **S125DIP-S850D590U935-4F0-1E-UDD-F1**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P333221-935
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-S850D590U935-4F0-1E-UDD-F1
Description: DEFINE 5 DIRECT-INDIRECT PENDANT LED LUMINAIRE
DOWNLIGHT 850 LUMENS PER FOOT, FLUSH SATIN WHITE DIFFUSER
UPLIGHT 590 LUMENS PER FOOT, FLUSH SATIN WHITE DIFFUSER
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 4703.7 lumens
Efficiency: N/A
Efficacy: 116.7 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

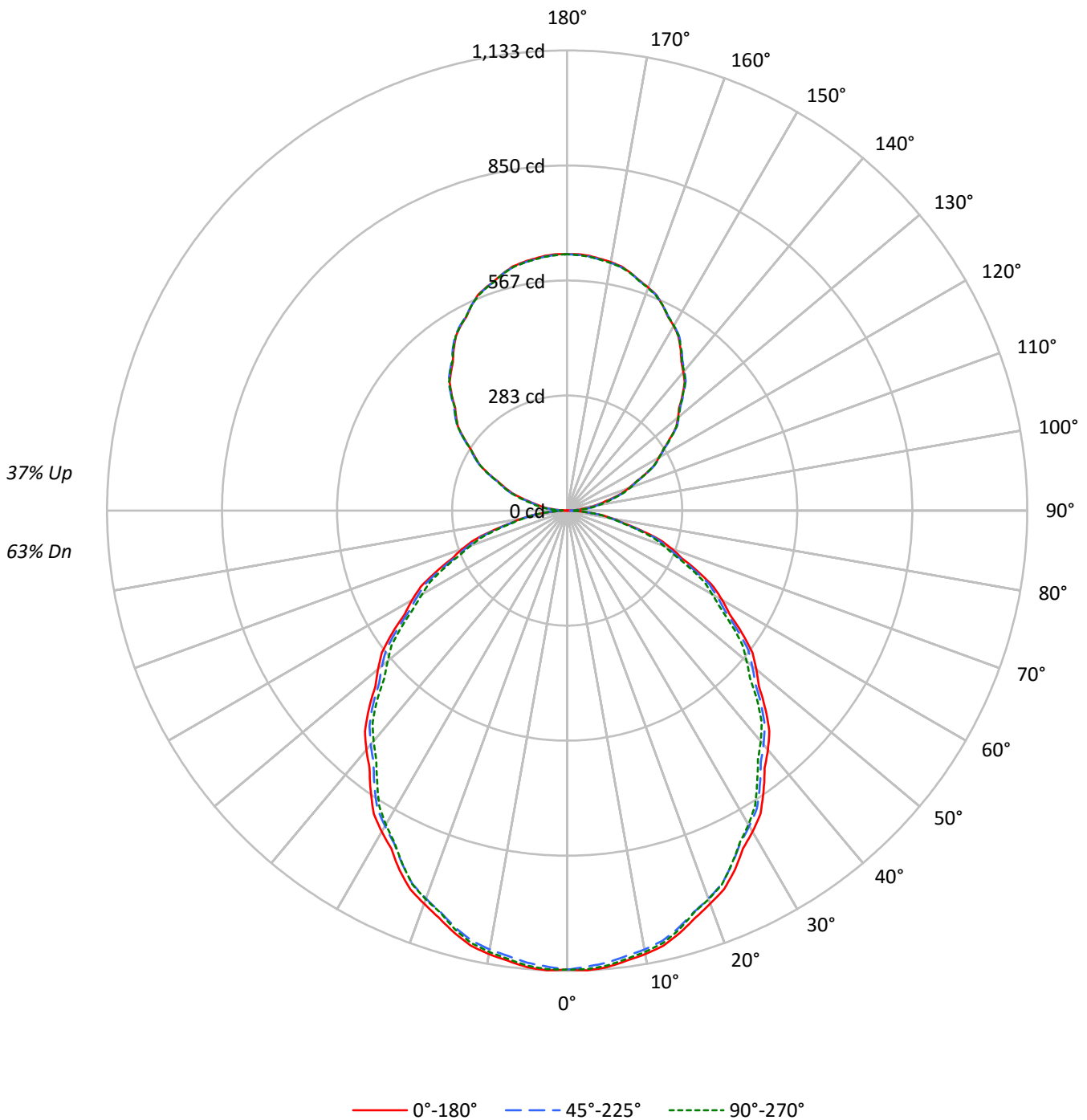
Input Watts (W): 40.3
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	110	110	110	110	103	103	103	103	90	90	90	79	79	79	68	68	68	63
1	101	96	92	88	94	90	87	84	79	77	74	69	67	65	60	58	57	53
2	92	84	78	72	85	79	73	69	69	65	61	61	57	54	52	50	48	44
3	83	74	66	60	78	69	63	57	61	56	52	54	49	46	46	43	41	37
4	76	65	57	51	71	62	54	49	54	49	44	48	43	39	42	38	35	32
5	70	58	50	44	66	55	47	42	49	43	38	43	38	34	37	34	31	28
6	65	52	44	38	60	49	42	36	44	38	33	39	34	30	34	30	27	24
7	60	47	39	33	56	45	37	32	40	34	29	35	30	27	31	27	24	22
8	56	43	35	30	52	41	33	28	36	30	26	32	27	24	29	25	22	19
9	52	39	32	26	49	37	30	25	33	28	23	30	25	21	26	22	19	17
10	49	36	29	24	45	34	28	23	31	25	21	28	23	19	24	21	18	16

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	7299	7299	7299
5°	7316	7247	7293
10°	7271	7195	7237
15°	7192	7109	7138
20°	7080	6988	7000
25°	6959	6844	6837
30°	6809	6689	6655
35°	6649	6522	6430
40°	6483	6340	6250
45°	6305	6175	6052
50°	6109	5974	5795
55°	5920	5749	5588
60°	5694	5521	5324
65°	5425	5248	5069
70°	5166	4930	4762
75°	4706	4551	4397
80°	4192	4125	4024
85°	3646	3712	3512



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	106.6	2.3
10°-20°	301.0	6.4
20°-30°	444.5	9.4
30°-40°	518.7	11.0
40°-50°	520.9	11.1
50°-60°	457.3	9.7
60°-70°	340.7	7.2
70°-80°	194.8	4.1
80°-90°	58.1	1.2
90°-100°	42.3	0.9
100°-110°	124.8	2.7
110°-120°	211.4	4.5
120°-130°	278.3	5.9
130°-140°	311.8	6.6
140°-150°	305.6	6.5
150°-160°	256.7	5.5
160°-170°	170.6	3.6
170°-180°	59.7	1.3
0°-30°	852.1	18.1
0°-40°	1370.8	29.1
0°-60°	2348.9	49.9
0°-90°	2942.5	62.6
90°-120°	378.5	8.0
90°-150°	1274.2	27.1
90°-180°	1761.0	37.4
0°-180°	4703.7	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1130	1130	1130	1130	1130	
5°	1128	1126	1118	1125	1125	107
15°	1076	1073	1063	1067	1068	303
25°	976	972	960	962	960	449
35°	843	839	827	823	816	527
45°	690	686	676	666	663	532
55°	526	523	511	503	496	469
65°	355	353	343	336	332	352
75°	189	187	182	180	176	201
85°	49	50	50	49	47	55
90°	0	4	8	10	12	4
95°	32	33	38	41	42	34
105°	112	114	117	120	122	120
115°	212	214	215	214	214	209
125°	309	312	312	311	311	277
135°	402	405	405	405	403	310
145°	487	489	490	490	489	304
155°	557	557	558	559	557	256
165°	606	605	605	607	604	171
175°	630	628	628	630	627	60
180°	631	631	631	631	631	



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CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	1130.2	1130.2	1130.2	1130.2	1130.2	1130.2	1130.2	1130.2	1130.2	1130.2	1130.2
2.5°	1133.2	1132.6	1132.2	1131.7	1131.2	1130.1	1128.6	1127.0	1125.4	1123.9	1125.4
5°	1128.5	1128.1	1127.7	1127.3	1126.9	1125.7	1123.7	1121.7	1119.7	1117.8	1119.6
7.5°	1118.1	1117.8	1117.3	1116.9	1116.5	1115.3	1113.0	1110.9	1108.7	1106.5	1108.2
10°	1108.8	1108.5	1108.0	1107.6	1107.2	1106.0	1103.7	1101.6	1099.4	1097.2	1098.8
12.5°	1097.3	1096.7	1096.0	1095.2	1094.5	1093.1	1091.1	1089.1	1087.0	1085.0	1086.3
15°	1075.7	1075.1	1074.5	1073.9	1073.3	1071.9	1069.8	1067.6	1065.4	1063.2	1064.2
17.5°	1050.9	1050.0	1049.1	1048.3	1047.4	1045.8	1043.5	1041.3	1039.0	1036.7	1037.9
20°	1030.1	1029.8	1029.3	1028.9	1028.6	1027.0	1024.4	1021.8	1019.3	1016.7	1018.1
22.5°	1009.4	1008.7	1008.0	1007.2	1006.5	1005.0	1002.5	1000.1	997.6	995.2	996.2
25°	976.5	975.5	974.5	973.4	972.5	970.7	968.1	965.5	962.9	960.4	960.8
27.5°	938.0	937.5	936.9	936.3	935.6	934.0	931.3	928.7	926.0	923.3	923.4
30°	913.0	912.4	911.8	911.2	910.6	908.8	905.9	902.8	899.8	896.9	896.5
32.5°	885.8	884.8	884.0	883.0	882.2	880.4	877.7	875.0	872.4	869.7	869.0
35°	843.3	842.4	841.6	840.9	840.1	838.3	835.5	832.7	829.9	827.2	826.1
37.5°	799.1	798.1	797.0	796.1	795.0	793.2	790.7	788.0	785.4	782.8	781.3
40°	769.0	768.0	767.1	766.0	765.0	763.2	760.3	757.6	754.8	752.0	750.3
42.5°	736.8	736.0	735.1	734.3	733.5	731.7	728.9	726.1	723.3	720.6	718.9
45°	690.3	689.5	688.7	687.9	687.2	685.5	683.2	680.8	678.4	676.1	673.6
47.5°	640.2	640.3	640.3	640.3	640.4	639.0	636.1	633.3	630.4	627.6	625.1
50°	608.0	607.4	606.8	606.2	605.7	604.2	601.8	599.4	597.0	594.6	592.0
52.5°	575.1	574.7	574.3	573.9	573.4	571.9	569.4	566.8	564.3	561.7	559.5
55°	525.8	525.2	524.6	524.0	523.4	521.7	518.9	516.2	513.3	510.6	508.8
57.5°	473.7	473.5	473.1	472.8	472.5	471.1	468.8	466.5	464.1	461.8	459.4
60°	440.8	440.1	439.3	438.4	437.6	436.2	433.9	431.8	429.6	427.4	425.4
62.5°	406.5	405.9	405.3	404.6	404.0	402.7	400.9	399.0	397.1	395.2	393.1
65°	355.0	354.6	354.2	353.8	353.4	352.1	349.9	347.8	345.5	343.4	341.6
67.5°	305.1	304.3	303.4	302.6	301.8	300.5	298.9	297.3	295.7	294.0	292.5
70°	273.6	272.6	271.6	270.6	269.7	268.3	266.5	264.7	262.9	261.1	259.9
72.5°	239.3	238.6	237.9	237.3	236.6	235.7	234.5	233.3	232.2	231.1	229.7
75°	188.6	188.3	187.9	187.5	187.1	186.4	185.4	184.4	183.4	182.4	181.8
77.5°	142.0	141.8	141.7	141.5	141.4	141.0	140.4	139.9	139.3	138.8	138.4
80°	112.7	112.7	112.7	112.7	112.7	112.4	112.1	111.7	111.2	110.9	110.7
82.5°	86.9	86.6	86.3	85.9	85.7	85.4	85.3	85.3	85.2	85.2	84.8
85°	49.2	49.4	49.6	49.8	49.9	50.1	50.1	50.1	50.1	50.1	49.9
87.5°	19.4	19.5	19.8	20.0	20.1	20.2	20.1	20.1	20.1	20.1	20.3
90°	0.5	1.4	2.2	3.1	4.0	4.8	5.6	6.4	7.1	7.8	8.4
92.5°	11.9	12.5	13.1	13.7	14.3	15.1	16.0	17.0	17.9	18.9	19.5
95°	31.9	32.1	32.4	32.5	32.8	33.5	34.5	35.6	36.8	37.8	38.6
97.5°	53.0	53.1	53.2	53.3	53.4	54.2	55.7	57.2	58.7	60.2	61.0
100°	68.8	68.8	68.8	68.8	68.8	69.5	70.9	72.3	73.7	75.2	76.1
102.5°	85.7	86.1	86.5	87.0	87.4	88.0	88.7	89.5	90.1	90.8	92.0
105°	112.0	112.5	113.0	113.7	114.2	114.8	115.5	116.1	116.8	117.4	118.0
107.5°	141.0	141.6	142.2	142.7	143.3	143.8	144.3	144.7	145.3	145.8	146.1
110°	161.1	161.6	162.2	162.7	163.3	163.8	164.0	164.4	164.7	165.1	165.4



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CANDELA DISTRIBUTION (continued):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	181.5	181.8	182.1	182.4	182.7	183.0	183.5	183.8	184.3	184.7	184.9
115°	211.7	212.2	212.6	213.0	213.4	213.8	214.0	214.2	214.4	214.6	214.6
117.5°	241.9	242.1	242.4	242.5	242.7	243.0	243.1	243.3	243.5	243.7	243.8
120°	260.8	261.4	261.9	262.4	263.0	263.3	263.5	263.6	263.6	263.7	263.7
122.5°	281.3	281.5	281.6	281.8	282.1	282.2	282.6	282.8	283.1	283.4	283.4
125°	308.9	309.6	310.2	310.9	311.6	311.9	312.0	312.2	312.3	312.4	312.2
127.5°	338.5	338.8	339.1	339.5	339.9	340.2	340.3	340.4	340.5	340.7	340.6
130°	356.1	356.6	357.2	357.7	358.3	358.7	358.9	359.1	359.3	359.6	359.5
132.5°	373.8	374.7	375.6	376.4	377.4	377.8	377.7	377.7	377.6	377.6	377.5
135°	401.7	402.4	403.1	403.7	404.4	404.8	404.9	405.0	405.1	405.2	405.2
137.5°	428.1	428.8	429.4	430.0	430.7	431.1	431.4	431.5	431.8	432.0	432.1
140°	445.0	445.6	446.1	446.6	447.2	447.6	448.0	448.3	448.6	448.9	449.2
142.5°	461.9	462.4	462.8	463.3	463.7	464.2	464.6	465.0	465.5	465.8	466.0
145°	486.7	487.2	487.7	488.1	488.5	488.9	489.2	489.6	489.9	490.2	490.2
147.5°	509.7	510.0	510.2	510.5	510.7	510.9	511.2	511.5	511.8	512.0	512.3
150°	525.0	525.0	524.9	524.8	524.6	524.8	525.2	525.6	526.1	526.5	526.5
152.5°	537.6	537.8	538.0	538.1	538.2	538.4	538.6	538.7	538.9	539.2	539.4
155°	557.0	557.0	557.0	557.0	557.0	557.1	557.2	557.2	557.4	557.5	557.9
157.5°	574.3	574.0	573.8	573.6	573.3	573.3	573.3	573.5	573.6	573.7	574.1
160°	584.5	584.2	583.8	583.5	583.2	583.1	583.2	583.3	583.4	583.5	583.9
162.5°	593.6	593.3	593.1	592.8	592.5	592.5	592.5	592.5	592.5	592.5	593.1
165°	605.6	605.4	605.2	604.9	604.8	604.7	604.8	604.9	605.0	605.1	605.5
167.5°	615.9	615.4	614.9	614.5	614.1	613.9	613.9	613.9	613.9	613.9	614.5
170°	621.3	620.9	620.4	620.0	619.6	619.4	619.4	619.4	619.4	619.4	620.0
172.5°	625.3	624.8	624.4	624.0	623.5	623.3	623.3	623.3	623.3	623.3	624.0
175°	629.6	629.2	628.8	628.4	627.9	627.8	627.8	627.8	627.8	627.8	628.4
177.5°	632.0	631.6	631.3	630.9	630.5	630.3	630.3	630.2	630.1	630.0	630.5
180°	631.2	631.2	631.2	631.2	631.2	631.2	631.2	631.2	631.2	631.2	631.2



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CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
0°	1130.2	1130.2	1130.2	1130.2	1130.2	1130.2	1130.2	1130.2
2.5°	1127.0	1128.6	1130.1	1130.9	1130.8	1130.6	1130.4	1130.2
5°	1121.4	1123.1	1124.9	1125.7	1125.5	1125.3	1125.1	1124.9
7.5°	1110.0	1111.7	1113.4	1114.2	1114.0	1113.9	1113.6	1113.4
10°	1100.4	1102.0	1103.5	1104.2	1104.1	1103.8	1103.6	1103.5
12.5°	1087.5	1088.8	1090.1	1090.7	1090.7	1090.6	1090.6	1090.5
15°	1065.2	1066.2	1067.2	1067.6	1067.6	1067.6	1067.6	1067.6
17.5°	1039.2	1040.4	1041.6	1041.8	1040.8	1039.8	1038.8	1037.8
20°	1019.5	1020.9	1022.3	1022.4	1021.5	1020.5	1019.5	1018.5
22.5°	997.0	998.0	998.9	999.0	998.3	997.6	997.0	996.3
25°	961.1	961.6	962.0	961.8	961.3	960.7	960.1	959.5
27.5°	923.5	923.6	923.7	923.4	922.8	922.2	921.6	921.0
30°	896.1	895.7	895.3	894.8	894.2	893.6	893.0	892.4
32.5°	868.2	867.5	866.9	865.9	864.9	863.8	862.7	861.7
35°	825.2	824.1	823.2	821.9	820.3	818.7	817.1	815.5
37.5°	779.8	778.3	776.9	775.7	774.8	773.9	773.0	772.1
40°	748.5	746.7	744.9	743.6	743.0	742.5	741.9	741.3
42.5°	717.3	715.7	714.0	712.7	711.9	710.9	710.0	709.1
45°	671.2	668.8	666.5	665.0	664.4	663.8	663.2	662.6
47.5°	622.7	620.3	617.9	616.0	614.6	613.2	611.7	610.4
50°	589.4	586.9	584.3	582.3	580.9	579.5	578.2	576.8
52.5°	557.2	554.9	552.7	550.8	549.2	547.7	546.1	544.6
55°	507.0	505.2	503.4	501.9	500.4	499.0	497.7	496.3
57.5°	457.2	454.9	452.5	451.0	450.2	449.5	448.8	448.0
60°	423.4	421.5	419.5	417.8	416.4	415.0	413.6	412.2
62.5°	391.0	388.8	386.7	385.0	384.0	382.9	381.9	380.7
65°	339.8	338.0	336.2	334.9	334.2	333.4	332.5	331.7
67.5°	291.0	289.5	288.0	287.0	286.5	286.0	285.5	285.1
70°	258.7	257.5	256.3	255.4	254.5	253.7	253.0	252.2
72.5°	228.3	227.0	225.7	224.5	223.8	223.0	222.2	221.4
75°	181.2	180.6	180.0	179.3	178.6	177.7	176.9	176.2
77.5°	138.1	137.7	137.3	136.9	136.3	135.8	135.3	134.7
80°	110.5	110.3	110.1	109.8	109.4	109.0	108.6	108.2
82.5°	84.4	84.0	83.7	83.5	83.4	83.3	83.3	83.2
85°	49.7	49.5	49.2	49.0	48.6	48.2	47.8	47.4
87.5°	20.4	20.5	20.6	20.6	20.3	20.1	19.8	19.5
90°	9.0	9.5	10.1	10.5	10.8	11.1	11.5	11.8
92.5°	20.3	21.0	21.8	22.2	22.5	22.7	22.9	23.2
95°	39.3	40.1	40.9	41.3	41.6	41.8	42.0	42.3
97.5°	61.6	62.4	63.1	63.5	63.6	63.8	63.9	64.1
100°	77.1	78.1	79.0	79.6	79.9	80.2	80.3	80.6
102.5°	93.0	94.1	95.1	95.8	96.2	96.4	96.8	97.0
105°	118.7	119.3	120.0	120.5	120.8	121.1	121.5	121.8
107.5°	146.5	146.8	147.1	147.2	147.2	147.2	147.1	147.1
110°	165.7	166.0	166.3	166.4	166.3	166.3	166.1	166.0



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CATALOG NUMBER: S125DIP-S850D590U935-4F0-1E-UDD-F1

CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
112.5°	185.0	185.1	185.3	185.3	185.1	184.9	184.7	184.5
115°	214.4	214.3	214.2	214.1	214.0	213.9	213.8	213.7
117.5°	243.9	244.0	244.1	243.9	243.5	243.1	242.6	242.1
120°	263.7	263.7	263.7	263.6	263.1	262.7	262.3	261.8
122.5°	283.3	283.2	283.1	282.8	282.5	282.1	281.8	281.5
125°	311.9	311.8	311.5	311.3	311.3	311.2	311.0	310.9
127.5°	340.4	340.4	340.3	340.1	339.8	339.7	339.4	339.2
130°	359.3	359.2	359.1	359.0	358.7	358.5	358.3	358.1
132.5°	377.4	377.3	377.2	376.9	376.7	376.3	376.1	375.7
135°	405.2	405.2	405.2	405.0	404.6	404.2	403.7	403.3
137.5°	432.3	432.4	432.6	432.4	431.8	431.3	430.8	430.2
140°	449.4	449.6	449.8	449.6	449.1	448.6	448.0	447.5
142.5°	466.1	466.2	466.3	466.1	465.6	465.0	464.5	464.0
145°	490.2	490.2	490.2	490.0	489.7	489.4	489.0	488.7
147.5°	512.6	512.8	513.1	512.8	512.0	511.3	510.6	509.9
150°	526.5	526.5	526.5	526.4	526.2	526.0	525.8	525.6
152.5°	539.7	539.9	540.2	540.1	539.7	539.3	538.9	538.6
155°	558.4	558.8	559.2	559.2	558.6	558.1	557.5	557.0
157.5°	574.5	575.0	575.4	575.3	574.5	573.9	573.2	572.4
160°	584.4	584.8	585.2	585.2	584.7	584.1	583.6	583.1
162.5°	593.6	594.1	594.7	594.6	594.0	593.3	592.7	592.0
165°	606.0	606.4	606.9	606.7	606.1	605.5	604.8	604.2
167.5°	615.2	615.9	616.5	616.5	615.8	615.1	614.4	613.8
170°	620.7	621.3	622.0	621.9	621.2	620.4	619.7	618.9
172.5°	624.7	625.3	625.9	625.9	625.3	624.6	623.9	623.2
175°	629.0	629.6	630.3	630.3	629.6	628.8	628.0	627.2
177.5°	631.0	631.5	632.1	632.1	631.5	630.9	630.2	629.6
180°	631.2	631.2	631.2	631.2	631.2	631.2	631.2	631.2

(END OF REPORT)