

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: P333222-830

Luminaire Tested: **S125DIP-S850D590U830-4F0-1E-UDD-F4**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P333222-830
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-S850D590U830-4F0-1E-UDD-F4
Description: DEFINE 5 DIRECT-INDIRECT PENDANT LED LUMINAIRE
DOWNLIGHT 850 LUMENS PER FOOT, FLUSH SATIN WHITE DIFFUSER
UPLIGHT 590 LUMENS PER FOOT, BATWING OPTIC
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 5221.0 lumens
Efficiency: N/A
Efficacy: 129.6 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

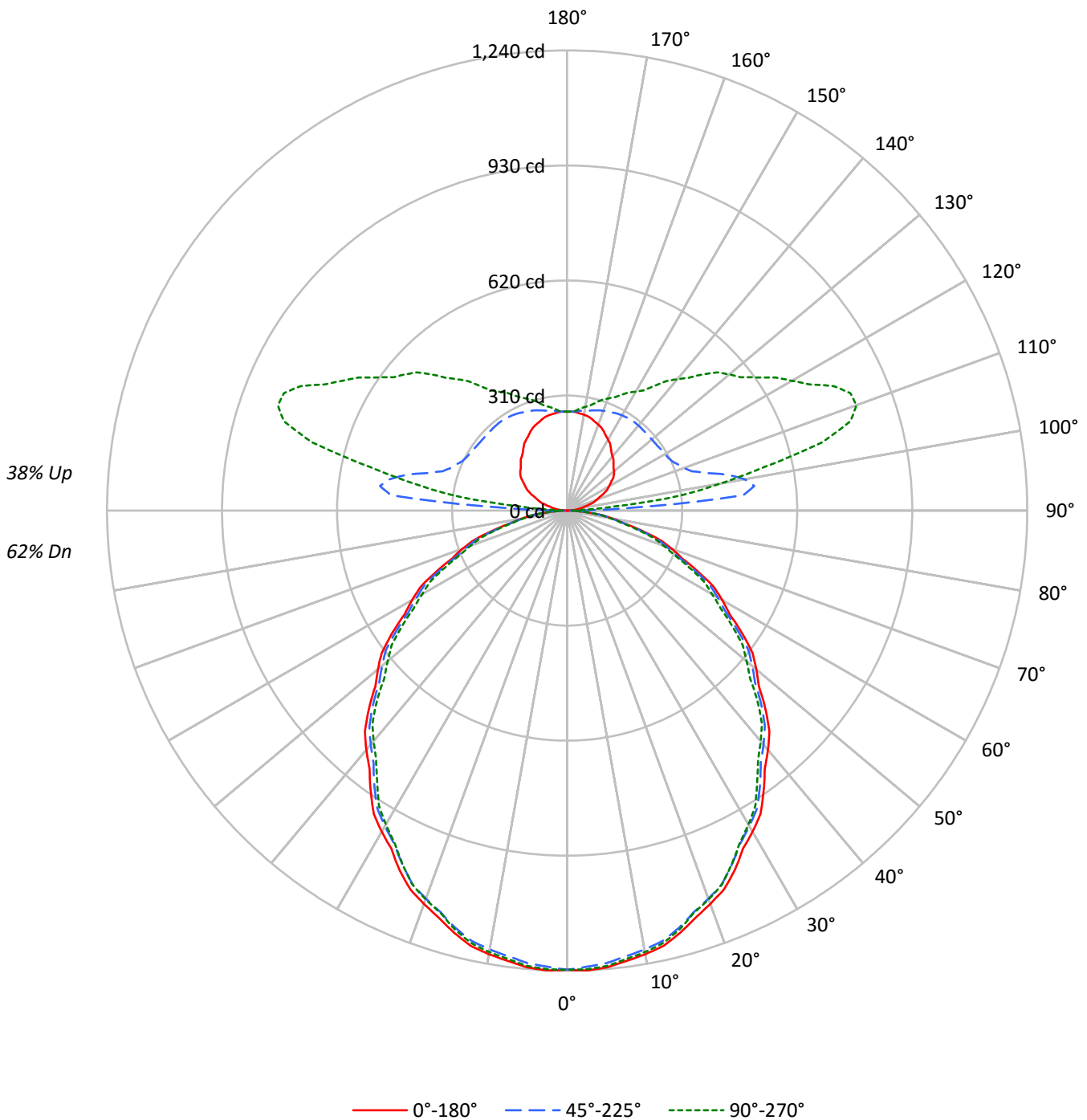
Input Watts (W): 40.3
Input Voltage (V): 120
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	78	78	78	67	67	67	62
1	100	96	92	88	94	90	86	83	79	76	74	68	67	65	59	58	56	52
2	91	84	77	72	85	79	73	68	69	65	61	60	57	54	52	50	47	43
3	83	74	66	60	78	69	62	57	61	56	51	53	49	46	46	43	40	37
4	76	65	57	51	71	61	54	48	54	48	44	47	43	39	41	38	35	31
5	70	58	50	44	65	55	47	42	48	42	38	43	38	34	37	33	30	27
6	65	52	44	38	60	49	42	36	44	38	33	38	34	30	34	30	27	24
7	60	47	39	33	56	45	37	32	40	34	29	35	30	26	31	27	24	21
8	56	43	35	30	52	41	33	28	36	30	26	32	27	24	28	24	21	19
9	52	39	32	26	48	37	30	25	33	27	23	30	25	21	26	22	19	17
10	48	36	29	24	45	34	27	23	31	25	21	27	23	19	24	20	17	16

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	7991	7991	7991
5°	8009	7933	7983
10°	7960	7877	7922
15°	7874	7782	7815
20°	7750	7649	7663
25°	7617	7492	7485
30°	7454	7322	7285
35°	7278	7139	7039
40°	7098	6940	6842
45°	6902	6760	6625
50°	6688	6540	6344
55°	6481	6293	6117
60°	6234	6044	5829
65°	5938	5744	5550
70°	5655	5399	5214
75°	5153	4983	4811
80°	4590	4515	4407
85°	3987	4068	3838



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	116.7	2.2
10°-20°	329.6	6.3
20°-30°	486.6	9.3
30°-40°	567.8	10.9
40°-50°	570.3	10.9
50°-60°	500.6	9.6
60°-70°	373.0	7.1
70°-80°	213.3	4.1
80°-90°	63.5	1.2
90°-100°	193.3	3.7
100°-110°	415.5	8.0
110°-120°	390.0	7.5
120°-130°	316.0	6.1
130°-140°	253.6	4.9
140°-150°	191.4	3.7
150°-160°	134.7	2.6
160°-170°	79.4	1.5
170°-180°	25.8	0.5
0°-30°	932.8	17.9
0°-40°	1500.6	28.7
0°-60°	2571.4	49.3
0°-90°	3221.2	61.7
90°-120°	998.8	19.1
90°-150°	1759.9	33.7
90°-180°	2000.0	38.3
0°-180°	5221.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1237	1237	1237	1237	1237	
5°	1235	1233	1224	1232	1231	117
15°	1178	1174	1164	1169	1169	332
25°	1069	1064	1051	1053	1050	492
35°	923	919	906	900	893	577
45°	756	751	740	729	725	582
55°	576	572	559	550	543	514
65°	389	386	376	367	363	386
75°	206	204	200	197	193	220
85°	54	55	55	54	52	60
90°	1	5	9	11	12	4
95°	18	52	476	216	126	19
105°	61	85	390	767	712	64
115°	109	131	313	674	794	107
125°	150	176	300	537	625	134
135°	176	212	298	450	519	137
145°	205	235	299	372	410	129
155°	234	252	291	329	344	108
165°	256	263	280	296	301	72
175°	266	266	268	272	270	25
180°	267	267	267	267	267	



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CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	1237.3	1237.3	1237.3	1237.3	1237.3	1237.3	1237.3	1237.3	1237.3	1237.3	1237.3
2.5°	1240.5	1239.9	1239.4	1238.9	1238.3	1237.2	1235.5	1233.8	1232.0	1230.3	1232.0
5°	1235.4	1234.9	1234.4	1234.1	1233.6	1232.3	1230.1	1227.9	1225.8	1223.6	1225.6
7.5°	1224.0	1223.6	1223.1	1222.7	1222.3	1220.9	1218.4	1216.1	1213.7	1211.3	1213.1
10°	1213.8	1213.4	1213.0	1212.5	1212.1	1210.7	1208.2	1205.9	1203.5	1201.1	1202.9
12.5°	1201.3	1200.5	1199.8	1198.9	1198.2	1196.7	1194.5	1192.2	1190.0	1187.8	1189.2
15°	1177.6	1177.0	1176.3	1175.6	1175.0	1173.5	1171.1	1168.7	1166.3	1163.9	1165.0
17.5°	1150.4	1149.4	1148.5	1147.5	1146.6	1144.8	1142.4	1139.9	1137.4	1134.9	1136.2
20°	1127.7	1127.3	1126.8	1126.3	1126.0	1124.3	1121.4	1118.6	1115.8	1113.0	1114.6
22.5°	1104.9	1104.2	1103.4	1102.6	1101.8	1100.1	1097.5	1094.8	1092.1	1089.5	1090.5
25°	1068.9	1067.9	1066.8	1065.6	1064.6	1062.6	1059.8	1057.0	1054.1	1051.3	1051.8
27.5°	1026.8	1026.2	1025.6	1024.9	1024.3	1022.5	1019.5	1016.6	1013.7	1010.8	1010.9
30°	999.5	998.8	998.2	997.5	996.8	994.9	991.6	988.4	985.1	981.8	981.4
32.5°	969.7	968.7	967.7	966.7	965.7	963.7	960.8	957.9	955.0	952.1	951.3
35°	923.1	922.2	921.3	920.5	919.6	917.7	914.6	911.5	908.5	905.5	904.4
37.5°	874.8	873.6	872.5	871.5	870.3	868.4	865.5	862.6	859.8	857.0	855.3
40°	841.9	840.7	839.7	838.6	837.4	835.5	832.4	829.3	826.3	823.2	821.3
42.5°	806.6	805.7	804.7	803.9	803.0	801.0	798.0	794.8	791.8	788.8	787.0
45°	755.7	754.8	753.9	753.1	752.2	750.5	747.9	745.3	742.6	740.1	737.4
47.5°	700.9	701.0	701.0	701.0	701.1	699.6	696.4	693.2	690.1	687.0	684.3
50°	665.6	665.0	664.3	663.6	663.1	661.4	658.8	656.2	653.6	650.9	648.1
52.5°	629.6	629.1	628.7	628.2	627.7	626.0	623.3	620.5	617.7	614.9	612.5
55°	575.6	575.0	574.3	573.6	573.0	571.1	568.1	565.1	561.9	558.9	556.9
57.5°	518.6	518.3	517.9	517.6	517.3	515.8	513.2	510.7	508.0	505.5	502.9
60°	482.6	481.7	480.9	479.9	479.1	477.5	475.0	472.7	470.3	467.9	465.7
62.5°	445.0	444.3	443.7	442.9	442.2	440.8	438.8	436.8	434.7	432.6	430.4
65°	388.6	388.1	387.8	387.3	386.9	385.5	383.0	380.7	378.2	375.9	373.9
67.5°	334.0	333.1	332.2	331.2	330.4	328.9	327.3	325.5	323.7	321.9	320.2
70°	299.5	298.4	297.4	296.2	295.2	293.7	291.7	289.7	287.8	285.9	284.6
72.5°	261.9	261.2	260.4	259.8	259.0	258.0	256.7	255.4	254.2	253.0	251.5
75°	206.5	206.1	205.7	205.3	204.8	204.1	202.9	201.9	200.8	199.7	199.1
77.5°	155.4	155.2	155.1	155.0	154.8	154.4	153.7	153.2	152.5	151.9	151.6
80°	123.4	123.4	123.4	123.4	123.4	123.1	122.7	122.2	121.8	121.4	121.2
82.5°	95.1	94.8	94.4	94.1	93.8	93.5	93.4	93.4	93.3	93.2	92.8
85°	53.8	54.1	54.3	54.5	54.7	54.9	54.9	54.9	54.9	54.9	54.6
87.5°	21.2	21.4	21.6	21.8	22.0	22.1	22.1	22.1	22.1	22.1	22.1
90°	0.6	1.0	2.2	3.2	4.3	5.4	5.9	7.0	7.5	8.6	9.1
92.5°	6.6	7.9	12.4	19.1	28.4	44.1	73.4	122.7	176.2	173.3	140.3
95°	17.7	18.3	22.6	28.5	40.3	64.6	122.1	240.3	388.7	476.4	466.2
97.5°	29.5	30.1	33.1	39.0	49.7	67.1	105.2	191.8	347.1	508.7	589.8
100°	37.6	38.7	40.9	46.8	57.0	73.1	104.3	174.2	309.7	485.5	619.9
102.5°	46.7	47.3	49.0	55.4	64.8	80.4	108.2	166.9	281.3	444.6	601.8
105°	60.8	60.8	63.4	68.8	77.4	92.5	116.1	164.0	253.7	389.8	544.1
107.5°	74.6	75.6	78.1	82.6	91.5	105.1	128.0	168.9	242.1	352.0	485.2
110°	84.5	85.5	87.7	92.5	100.6	114.5	136.6	173.6	238.7	334.4	451.7



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CANDELA DISTRIBUTION (continued):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	94.3	95.4	97.1	102.0	110.0	123.6	144.8	179.6	238.7	324.1	426.7
115°	108.6	109.7	111.3	116.1	124.2	137.6	157.5	188.7	240.3	312.9	399.4
117.5°	121.5	123.1	124.9	129.7	138.8	151.8	170.7	199.1	243.8	307.5	383.2
120°	130.1	131.8	133.8	138.7	147.9	161.3	180.1	205.9	247.3	304.8	374.2
122.5°	139.1	140.3	142.0	146.8	156.9	170.3	189.2	213.7	250.3	302.7	366.5
125°	150.5	151.7	154.3	159.1	169.4	183.3	201.0	224.2	255.4	300.0	355.9
127.5°	159.5	161.1	164.6	170.7	181.5	195.5	212.5	233.8	261.1	298.7	346.3
130°	165.0	166.6	171.0	178.0	189.3	203.2	219.9	240.3	264.6	297.8	339.8
132.5°	169.4	171.4	176.5	184.5	196.1	210.1	226.8	245.9	268.4	297.8	334.6
135°	176.3	178.5	184.9	193.6	204.8	219.3	236.0	253.7	273.6	297.8	328.5
137.5°	185.2	186.8	192.8	201.4	212.4	227.4	242.6	259.6	278.5	298.5	323.0
140°	190.3	191.9	198.4	207.0	217.3	231.8	247.3	263.4	280.7	299.0	320.5
142.5°	196.3	197.6	203.6	212.2	222.0	235.6	250.3	265.6	281.9	299.4	318.3
145°	205.4	206.4	211.8	219.3	229.0	241.4	255.4	268.8	283.3	299.0	315.1
147.5°	214.8	215.5	220.1	227.1	235.4	246.4	258.6	270.8	283.9	297.6	311.7
150°	220.5	221.5	225.3	232.2	239.8	248.9	260.8	272.0	283.9	296.2	309.2
152.5°	226.5	227.1	230.5	236.6	243.6	251.9	262.9	272.9	283.4	294.5	306.1
155°	234.4	234.4	237.6	243.0	248.4	255.9	265.0	273.6	282.3	291.4	301.0
157.5°	241.5	241.4	244.0	248.6	253.4	259.0	266.9	274.2	280.9	288.1	296.3
160°	246.3	245.7	247.9	251.7	255.9	260.8	267.8	274.2	279.6	286.1	292.5
162.5°	250.2	249.6	251.8	255.1	258.5	262.5	268.6	273.8	278.3	283.4	289.1
165°	255.9	254.9	256.5	259.1	261.3	264.6	268.8	273.1	276.4	279.6	283.9
167.5°	259.8	259.3	260.2	261.7	263.3	265.2	268.8	271.8	273.3	275.8	278.8
170°	262.4	261.8	262.4	263.4	264.6	266.2	268.8	271.0	272.0	273.6	275.8
172.5°	264.1	263.2	263.6	264.8	265.4	266.2	268.4	270.1	270.3	271.1	272.8
175°	266.2	265.0	265.6	266.2	266.2	266.2	267.8	268.8	268.2	268.2	268.8
177.5°	267.1	266.3	266.3	266.6	266.3	266.3	267.1	267.5	266.6	266.6	267.1
180°	266.6	266.6	266.6	266.6	266.6	266.6	266.6	266.6	266.6	266.6	266.6



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CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
0°	1237.3	1237.3	1237.3	1237.3	1237.3	1237.3	1237.3	1237.3
2.5°	1233.8	1235.5	1237.2	1238.0	1237.8	1237.7	1237.5	1237.3
5°	1227.6	1229.5	1231.4	1232.3	1232.1	1231.9	1231.6	1231.4
7.5°	1215.1	1217.0	1218.9	1219.7	1219.6	1219.4	1219.1	1218.9
10°	1204.6	1206.4	1208.1	1208.8	1208.6	1208.3	1208.2	1208.0
12.5°	1190.5	1191.9	1193.4	1194.0	1194.0	1193.9	1193.9	1193.8
15°	1166.1	1167.2	1168.3	1168.8	1168.8	1168.8	1168.8	1168.8
17.5°	1137.6	1139.0	1140.3	1140.5	1139.3	1138.3	1137.2	1136.1
20°	1116.1	1117.6	1119.1	1119.3	1118.2	1117.1	1116.1	1114.9
22.5°	1091.5	1092.5	1093.5	1093.6	1092.9	1092.1	1091.4	1090.7
25°	1052.2	1052.6	1053.1	1052.9	1052.3	1051.7	1051.0	1050.4
27.5°	1011.0	1011.1	1011.2	1010.9	1010.2	1009.6	1008.9	1008.2
30°	981.0	980.5	980.1	979.6	978.9	978.3	977.6	976.9
32.5°	950.5	949.7	949.0	947.9	946.8	945.6	944.4	943.3
35°	903.3	902.2	901.2	899.8	898.0	896.3	894.5	892.8
37.5°	853.7	852.1	850.5	849.1	848.2	847.2	846.2	845.2
40°	819.4	817.4	815.4	814.1	813.4	812.8	812.2	811.5
42.5°	785.2	783.4	781.7	780.2	779.3	778.3	777.2	776.3
45°	734.8	732.2	729.6	727.9	727.4	726.7	726.0	725.4
47.5°	681.6	679.0	676.4	674.3	672.8	671.3	669.7	668.2
50°	645.3	642.4	639.6	637.4	635.9	634.4	632.9	631.4
52.5°	610.0	607.5	605.0	602.9	601.2	599.6	597.9	596.2
55°	555.1	553.1	551.1	549.4	547.8	546.3	544.8	543.3
57.5°	500.5	497.9	495.4	493.7	492.9	492.1	491.3	490.4
60°	463.5	461.4	459.2	457.3	455.8	454.3	452.8	451.3
62.5°	428.0	425.7	423.3	421.5	420.4	419.1	418.0	416.8
65°	372.0	370.0	368.1	366.6	365.8	365.0	364.0	363.2
67.5°	318.6	316.9	315.3	314.1	313.7	313.1	312.5	312.1
70°	283.2	281.9	280.6	279.6	278.6	277.8	276.9	276.1
72.5°	250.0	248.5	247.0	245.8	245.0	244.1	243.3	242.3
75°	198.4	197.7	197.1	196.3	195.5	194.5	193.7	192.8
77.5°	151.2	150.7	150.3	149.9	149.2	148.6	148.1	147.4
80°	120.9	120.7	120.6	120.2	119.8	119.3	118.9	118.5
82.5°	92.4	92.0	91.6	91.4	91.3	91.2	91.1	91.0
85°	54.4	54.2	53.9	53.6	53.2	52.8	52.3	51.8
87.5°	22.3	22.4	22.5	22.5	22.2	21.9	21.6	21.3
90°	9.7	10.2	10.7	11.8	11.8	11.8	12.3	12.3
92.5°	95.3	69.2	52.0	44.1	37.2	35.9	35.2	34.3
95°	386.5	304.8	238.7	193.6	155.4	139.2	135.0	126.4
97.5°	575.7	518.4	454.0	391.2	358.0	327.8	312.3	305.4
100°	661.3	635.0	579.6	523.7	486.5	447.9	428.0	419.3
102.5°	690.1	706.3	679.8	642.0	602.3	574.8	553.2	546.7
105°	673.2	746.8	770.4	764.5	747.3	729.6	718.9	712.4
107.5°	612.5	710.8	771.6	799.6	808.3	808.2	804.6	800.3
110°	567.8	670.0	745.7	791.5	815.6	825.9	829.6	829.6



TEST NUMBER: P333222-830

CATALOG NUMBER: S125DIP-S850D590U830-4F0-1E-UDD-F4

CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
112.5°	532.5	629.5	706.2	760.1	795.4	812.9	822.3	826.1
115°	488.1	571.6	645.2	703.8	745.7	771.6	786.6	793.6
117.5°	459.6	531.4	594.8	648.7	690.6	717.3	732.2	736.5
120°	444.1	508.6	567.8	615.1	654.9	680.7	695.2	699.5
122.5°	432.5	492.3	545.0	589.3	624.7	648.4	662.9	666.8
125°	415.6	470.4	517.3	555.9	586.1	608.1	619.9	625.3
127.5°	398.4	449.6	493.2	529.5	556.8	576.3	587.4	589.8
130°	387.7	435.0	476.9	511.8	538.8	556.5	567.2	570.4
132.5°	376.9	421.2	459.3	492.9	519.8	537.5	547.4	551.1
135°	362.9	400.0	434.4	465.1	488.7	506.4	516.1	519.3
137.5°	351.1	381.1	409.7	435.7	456.9	473.1	481.9	485.5
140°	344.6	369.9	394.6	417.3	437.2	451.1	459.1	461.8
142.5°	339.0	360.4	381.7	401.3	418.2	430.0	437.6	439.9
145°	331.8	348.4	365.0	379.6	392.5	401.6	407.6	409.7
147.5°	324.9	338.4	351.2	362.1	372.4	379.7	383.1	384.1
150°	320.9	332.8	343.0	352.7	360.8	367.2	369.4	369.9
152.5°	316.7	327.3	336.6	344.1	350.9	356.0	358.2	358.7
155°	310.2	318.9	326.3	332.2	337.6	341.4	343.0	343.6
157.5°	303.8	310.9	316.7	321.3	325.5	328.6	330.1	330.0
160°	299.4	304.8	310.2	314.0	317.7	320.5	321.5	320.9
162.5°	294.7	299.7	304.2	307.6	310.5	312.7	312.9	312.8
165°	288.1	291.9	295.2	297.8	300.0	301.0	301.0	301.0
167.5°	281.9	284.5	286.9	288.8	289.9	290.9	290.4	290.3
170°	278.5	280.1	281.7	282.8	283.9	284.5	284.5	283.9
172.5°	274.7	276.3	277.4	278.1	278.3	279.3	278.4	277.9
175°	270.4	270.4	271.5	271.5	271.5	272.0	271.0	270.4
177.5°	267.5	268.0	268.0	268.0	267.5	268.0	266.6	266.6
180°	266.6	266.6	266.6	266.6	266.6	266.6	266.6	266.6

(END OF REPORT)