

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: P333213-830

Luminaire Tested: **S125DIP-S850D365U830-4F0-1E-UDD-F4**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P333213-830
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-S850D365U830-4F0-1E-UDD-F4
Description: DEFINE 5 DIRECT-INDIRECT PENDANT LED LUMINAIRE
DOWNLIGHT 850 LUMENS PER FOOT, FLUSH SATIN WHITE DIFFUSER
UPLIGHT 365 LUMENS PER FOOT, BATWING OPTIC
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 4459.7 lumens
Efficiency: N/A
Efficacy: 127.4 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

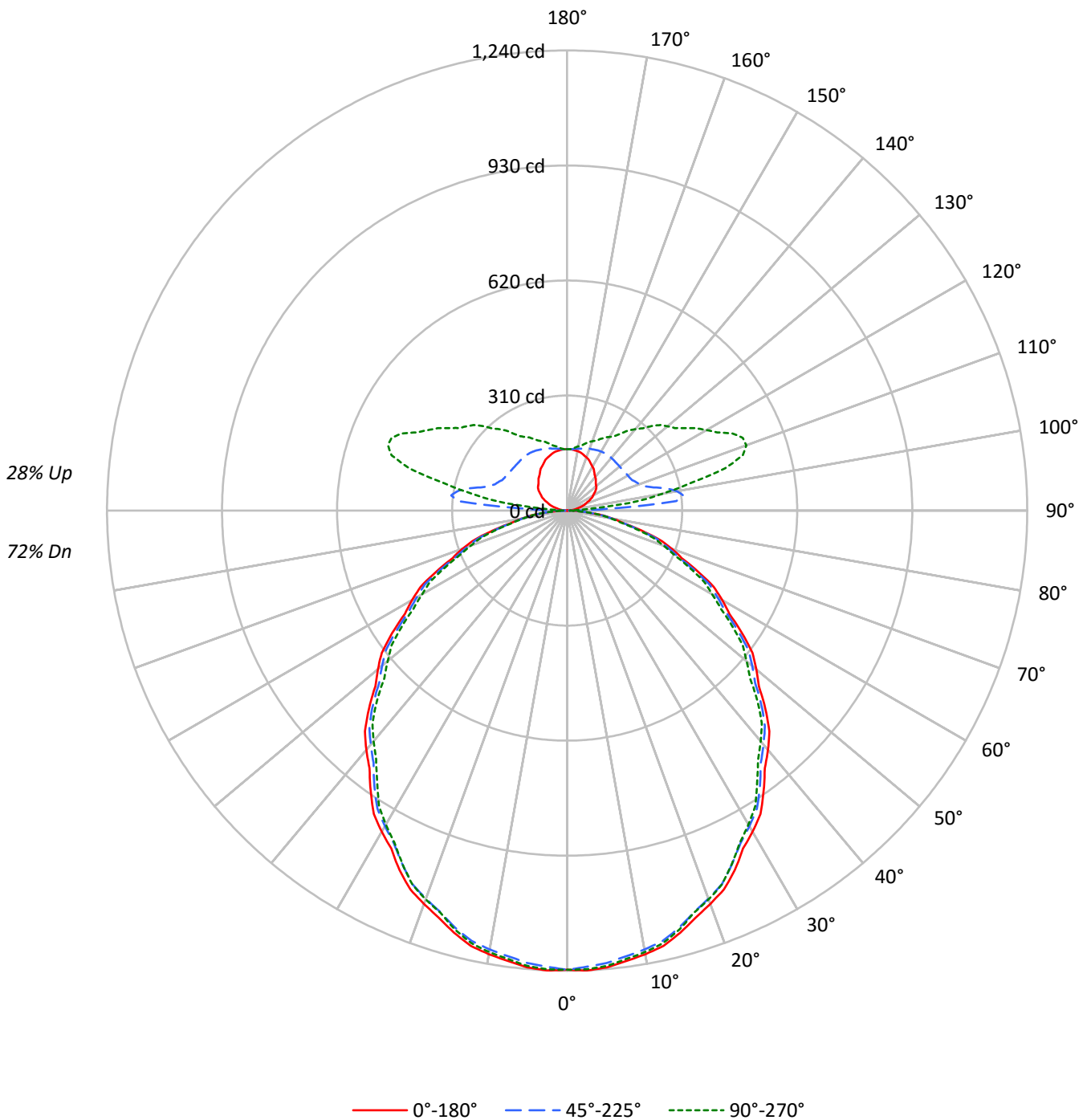
Input Watts (W): 35
Input Voltage (V): 120
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	112	112	112	112	107	107	107	107	96	96	96	86	86	86	77	77	77	72
1	103	98	94	90	97	93	90	86	84	81	79	75	73	71	68	66	65	61
2	93	86	79	74	88	81	76	71	74	69	65	66	63	60	59	57	54	51
3	85	75	68	62	81	72	65	59	65	59	55	59	54	50	53	49	46	43
4	78	67	59	52	74	64	56	50	58	52	47	52	47	43	47	43	40	37
5	72	60	51	45	68	57	49	43	52	45	40	47	42	38	42	38	35	32
6	66	54	45	39	63	51	43	38	47	40	35	42	37	33	38	34	31	28
7	61	49	40	34	58	46	39	33	42	36	31	39	33	29	35	31	27	25
8	57	44	36	31	54	42	35	30	39	32	28	35	30	26	32	28	24	22
9	53	40	33	27	50	39	32	27	36	29	25	33	27	24	30	25	22	20
10	50	37	30	25	47	36	29	24	33	27	23	30	25	21	28	23	20	18

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	2.6
10°-20°	329.6	7.4
20°-30°	486.6	10.9
30°-40°	567.8	12.7
40°-50°	570.3	12.8
50°-60°	500.6	11.2
60°-70°	373.0	8.4
70°-80°	213.3	4.8
80°-90°	63.0	1.4
90°-100°	119.8	2.7
100°-110°	257.4	5.8
110°-120°	241.6	5.4
120°-130°	195.8	4.4
130°-140°	157.1	3.5
140°-150°	118.6	2.7
150°-160°	83.5	1.9
160°-170°	49.2	1.1
170°-180°	16.0	0.4
0°-30°	932.8	20.9
0°-40°	1500.6	33.6
0°-60°	2571.4	57.7
0°-90°	3220.7	72.2
90°-120°	618.8	13.9
90°-150°	1090.3	24.4
90°-180°	1239.0	27.8
0°-180°	4459.7	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°	0	3	5	7	8	4
95°	11	32	295	134	78	12
105°	38	53	242	476	441	40
115°	67	81	194	418	492	66
125°	93	109	186	332	387	83
135°	109	131	184	279	322	85
145°	127	146	185	231	254	80
155°	145	156	181	204	213	67
165°	158	163	173	184	186	45
175°	165	165	166	168	168	16
180°	165	165	165	165	165	



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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	21.3	21.4	21.6	21.7	21.7	21.6	21.6	21.5	21.4	21.5
90°	0.4	0.7	1.3	2.0	2.6	3.3	3.7	4.3	4.6	5.4	5.7
92.5°	4.1	4.9	7.7	11.9	17.6	27.3	45.5	76.0	109.1	107.4	86.9
95°	11.0	11.3	13.9	17.6	25.0	40.0	75.6	148.9	240.8	295.1	288.8
97.5°	18.3	18.7	20.5	24.2	30.8	41.6	65.1	118.9	215.1	315.2	365.4
100°	23.3	23.9	25.4	28.9	35.3	45.3	64.7	107.9	191.9	300.8	384.1
102.5°	28.9	29.3	30.3	34.3	40.2	49.9	67.0	103.4	174.3	275.5	372.9
105°	37.6	37.6	39.3	42.6	48.0	57.3	71.9	101.6	157.2	241.5	337.1
107.5°	46.2	46.8	48.4	51.2	56.7	65.1	79.3	104.6	150.1	218.1	300.6
110°	52.3	53.0	54.3	57.3	62.3	71.0	84.6	107.6	147.9	207.2	279.8



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CANDELA DISTRIBUTION (continued):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	58.4	59.1	60.1	63.2	68.1	76.5	89.6	111.3	147.9	200.8	264.4
115°	67.3	68.0	69.0	71.9	76.9	85.3	97.6	116.9	148.9	193.9	247.5
117.5°	75.3	76.3	77.4	80.3	86.1	94.1	105.8	123.3	151.1	190.5	237.4
120°	80.6	81.6	82.9	86.0	91.6	99.9	111.6	127.6	153.3	188.9	231.9
122.5°	86.2	86.9	88.0	91.0	97.2	105.6	117.2	132.3	155.0	187.6	227.1
125°	93.3	94.0	95.6	98.6	104.9	113.6	124.6	138.9	158.3	185.9	220.6
127.5°	98.8	99.8	101.9	105.8	112.4	121.1	131.7	144.9	161.7	185.1	214.5
130°	102.3	103.3	105.9	110.3	117.3	125.9	136.2	148.9	163.9	184.5	210.6
132.5°	104.9	106.2	109.4	114.2	121.5	130.2	140.5	152.4	166.3	184.5	207.4
135°	109.2	110.6	114.6	119.9	127.0	135.9	146.2	157.2	169.6	184.5	203.5
137.5°	114.7	115.7	119.4	124.8	131.7	140.9	150.3	160.8	172.6	184.9	200.1
140°	117.9	118.9	122.9	128.3	134.6	143.5	153.3	163.2	173.9	185.2	198.5
142.5°	121.7	122.3	126.1	131.5	137.5	146.0	155.0	164.6	174.7	185.5	197.2
145°	127.2	127.9	131.2	135.9	141.9	149.6	158.3	166.5	175.5	185.2	195.2
147.5°	133.1	133.5	136.4	140.7	145.9	152.6	160.2	167.8	175.9	184.4	193.1
150°	136.6	137.2	139.6	143.9	148.5	154.2	161.6	168.5	175.9	183.5	191.5
152.5°	140.3	140.7	142.8	146.6	151.0	156.1	162.9	169.1	175.6	182.5	189.6
155°	145.2	145.2	147.2	150.5	153.9	158.5	164.2	169.6	174.8	180.6	186.5
157.5°	149.7	149.6	151.2	154.0	156.9	160.5	165.3	169.8	174.0	178.5	183.6
160°	152.6	152.2	153.5	155.9	158.5	161.6	165.9	169.8	173.2	177.2	181.3
162.5°	155.0	154.7	156.0	158.1	160.1	162.6	166.5	169.7	172.4	175.6	179.1
165°	158.5	157.9	158.9	160.5	161.9	163.9	166.5	169.2	171.3	173.2	175.9
167.5°	161.0	160.6	161.3	162.1	163.1	164.4	166.5	168.4	169.4	170.9	172.8
170°	162.6	162.2	162.6	163.2	163.9	164.9	166.5	167.9	168.5	169.6	170.9
172.5°	163.6	163.1	163.3	164.0	164.4	164.9	166.3	167.4	167.5	168.0	169.0
175°	164.9	164.2	164.6	164.9	164.9	164.9	165.9	166.5	166.3	166.3	166.5
177.5°	165.5	164.9	164.9	165.2	164.9	164.9	165.5	165.8	165.2	165.2	165.5
180°	165.2	165.2	165.2	165.2	165.2	165.2	165.2	165.2	165.2	165.2	165.2



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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°	21.6	21.6	21.7	21.7	21.3	20.9	20.6	20.4
90°	6.0	6.3	6.7	7.4	7.4	7.4	7.6	7.6
92.5°	59.0	42.8	32.2	27.3	23.1	22.2	21.8	21.2
95°	239.5	188.9	147.9	119.9	96.2	86.2	83.6	78.3
97.5°	356.7	321.2	281.3	242.3	221.8	203.1	193.5	189.2
100°	409.7	393.4	359.1	324.4	301.4	277.5	265.1	259.9
102.5°	427.5	437.6	421.2	397.8	373.2	356.1	342.7	338.7
105°	417.1	462.7	477.3	473.7	463.0	452.0	445.4	441.4
107.5°	379.5	440.4	478.0	495.4	500.8	500.8	498.5	495.9
110°	351.8	415.1	462.0	490.3	505.3	511.6	514.0	514.0



TEST NUMBER: P333213-830

CATALOG NUMBER: S125DIP-S850D365U830-4F0-1E-UDD-F4

CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
112.5°	329.9	390.0	437.5	470.9	492.8	503.7	509.4	511.9
115°	302.5	354.1	399.7	436.0	462.0	478.0	487.3	491.6
117.5°	284.7	329.2	368.5	401.9	427.8	444.4	453.6	456.3
120°	275.1	315.1	351.8	381.1	405.8	421.7	430.7	433.4
122.5°	268.0	305.0	337.6	365.0	387.1	401.7	410.8	413.1
125°	257.5	291.4	320.5	344.4	363.1	376.7	384.1	387.4
127.5°	246.9	278.5	305.6	328.0	345.0	357.0	363.9	365.4
130°	240.2	269.5	295.5	317.2	333.8	344.8	351.5	353.5
132.5°	233.5	261.0	284.6	305.4	322.1	333.0	339.1	341.4
135°	224.9	247.8	269.2	288.1	302.8	313.8	319.8	321.8
137.5°	217.5	236.1	253.8	269.9	283.0	293.0	298.6	300.8
140°	213.5	229.1	244.5	258.4	270.8	279.5	284.5	286.2
142.5°	210.1	223.3	236.5	248.6	259.1	266.5	271.2	272.6
145°	205.6	215.8	226.2	235.2	243.2	248.8	252.5	253.8
147.5°	201.2	209.6	217.6	224.4	230.7	235.3	237.3	238.0
150°	198.9	206.2	212.5	218.5	223.5	227.5	228.8	229.1
152.5°	196.2	202.7	208.5	213.2	217.4	220.6	221.9	222.3
155°	192.2	197.6	202.2	205.9	209.2	211.5	212.5	212.8
157.5°	188.2	192.6	196.2	199.1	201.7	203.6	204.5	204.4
160°	185.6	188.9	192.2	194.5	196.9	198.5	199.2	198.9
162.5°	182.6	185.7	188.5	190.6	192.4	193.7	193.9	193.8
165°	178.5	180.9	182.9	184.5	185.9	186.5	186.5	186.5
167.5°	174.7	176.3	177.8	179.0	179.6	180.2	179.9	179.8
170°	172.6	173.5	174.6	175.2	175.9	176.3	176.3	175.9
172.5°	170.1	171.2	171.9	172.3	172.4	173.1	172.5	172.1
175°	167.6	167.6	168.2	168.2	168.2	168.5	167.9	167.6
177.5°	165.8	166.0	166.0	166.0	165.8	166.0	165.2	165.2
180°	165.2	165.2	165.2	165.2	165.2	165.2	165.2	165.2

(END OF REPORT)