

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: P333255-830

Luminaire Tested: **S125DIP-S1090D365U830-4F0-1E-UDD-D4**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P333255-830
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-S1090D365U830-4F0-1E-UDD-D4
Description: DEFINE 5 DIRECT-INDIRECT PENDANT LED LUMINAIRE
DOWNLIGHT 1090 LUMENS PER FOOT, DROP SATIN WHITE DIFFUSER
UPLIGHT 365 LUMENS PER FOOT, BATWING OPTIC
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 5259.8 lumens
Efficiency: N/A
Efficacy: 120.9 lumens/watt
Spacing Criteria (0/90/45): 1.21 / 1.21 / 1.34
Luminous Opening: Rectangular w/ Sides (W: 0.42' x L: 4' x H: 0.08')
CIE Type: Semi-Direct

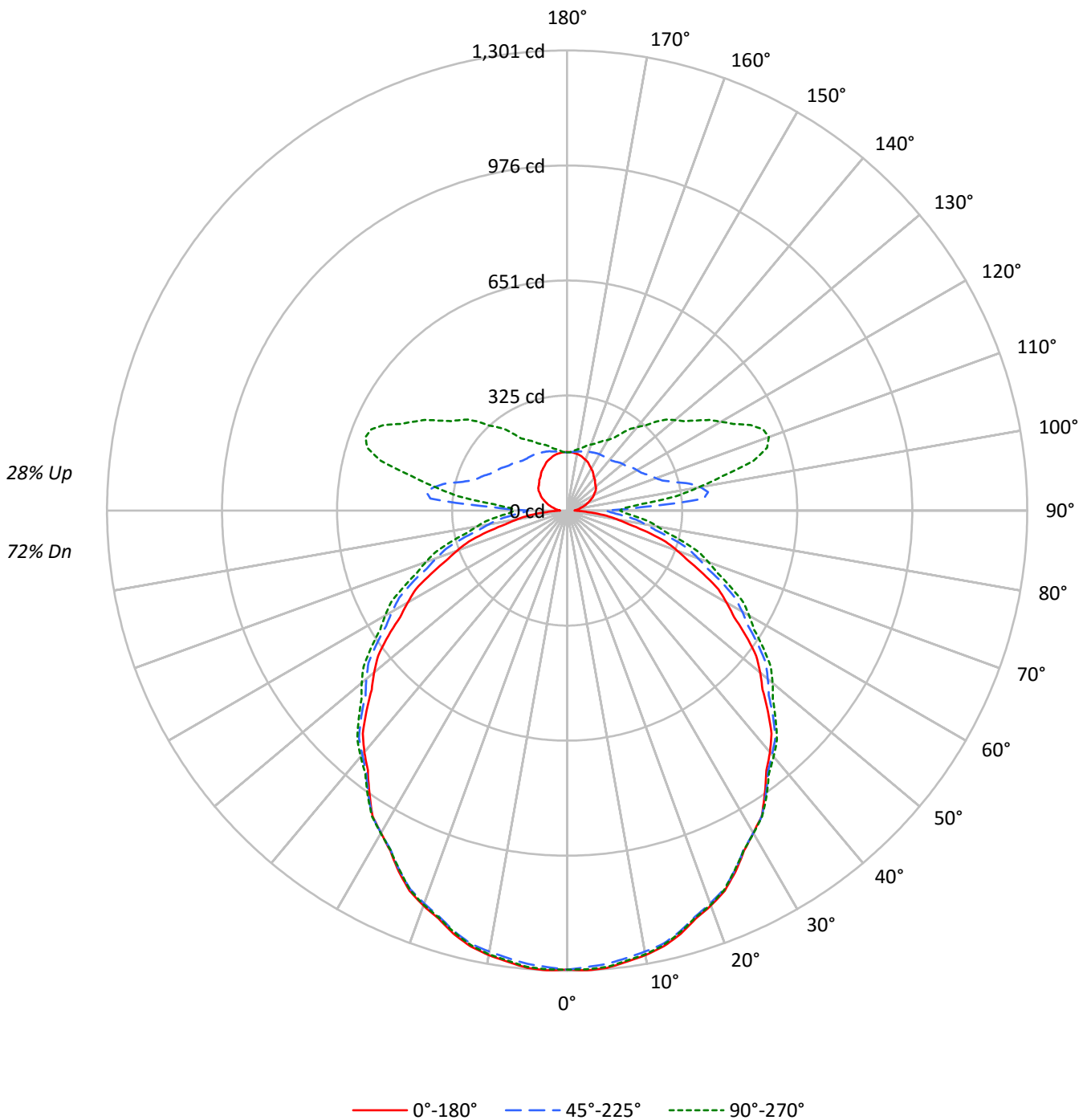
Input Watts (W): 43.5
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



TEST NUMBER: P333255-830

CATALOG NUMBER: S125DIP-S1090D365U830-4F0-1E-UDD-D4

Luminous Intensity Polar Plot





TEST NUMBER: P333255-830

CATALOG NUMBER: S125DIP-S1090D365U830-4F0-1E-UDD-D4

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	106	106	106	106	95	95	95	85	85	85	76	76	76	72
1	102	97	92	88	96	92	88	84	82	79	76	74	71	69	66	64	62	58
2	92	84	77	71	87	80	73	68	71	67	62	64	60	57	57	54	52	48
3	84	73	65	59	79	70	62	57	63	57	52	56	52	48	50	47	43	40
4	77	65	56	50	72	62	54	48	56	49	44	50	45	41	45	41	37	34
5	70	58	49	43	66	55	47	41	50	43	38	45	39	35	40	36	32	29
6	65	52	43	37	61	49	41	36	45	38	33	41	35	31	36	32	28	26
7	60	47	38	32	57	45	37	31	41	34	29	37	31	27	33	29	25	23
8	56	43	34	29	53	41	33	28	37	31	26	34	28	24	31	26	22	20
9	52	39	31	26	49	37	30	25	34	28	23	31	26	22	28	24	20	18
10	49	36	28	23	46	34	27	22	31	25	21	29	23	20	26	22	18	17

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	8382	8382	8382
5°	8399	8227	8253
10°	8339	8080	8068
15°	8240	7905	7833
20°	8107	7687	7597
25°	7947	7455	7307
30°	7754	7199	7044
35°	7574	6964	6802
40°	7390	6715	6559
45°	7184	6503	6343
50°	6986	6274	6153
55°	6748	6056	5928
60°	6488	5808	5700
65°	6217	5549	5444
70°	5908	5194	5179
75°	5420	4854	4854
80°	4780	4442	4501
85°	4183	4164	4388



TEST NUMBER: P333255-830

CATALOG NUMBER: S125DIP-S1090D365U830-4F0-1E-UDD-D4

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	122.7	2.3
10°-20°	348.4	6.6
20°-30°	518.1	9.9
30°-40°	613.7	11.7
40°-50°	634.5	12.1
50°-60°	584.5	11.1
60°-70°	472.5	9.0
70°-80°	316.4	6.0
80°-90°	165.0	3.1
90°-100°	211.8	4.0
100°-110°	325.3	6.2
110°-120°	287.1	5.5
120°-130°	221.6	4.2
130°-140°	168.4	3.2
140°-150°	120.9	2.3
150°-160°	83.5	1.6
160°-170°	49.2	0.9
170°-180°	16.0	0.3
<hr/>		
0°-30°	989.2	18.8
0°-40°	1602.9	30.5
0°-60°	2821.9	53.7
0°-90°	3775.8	71.8
90°-120°	824.3	15.7
90°-150°	1335.2	25.4
90°-180°	1484.0	28.2
0°-180°	5259.8	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1298	1298	1298	1298	1298	
5°	1298	1295	1286	1296	1295	123
15°	1239	1240	1232	1239	1234	349
25°	1126	1129	1122	1127	1121	518
35°	975	983	980	983	984	610
45°	803	816	823	832	833	619
55°	617	637	658	671	677	551
65°	425	454	485	503	509	422
75°	234	268	308	332	340	248
85°	70	112	156	183	195	75
90°	21	64	110	139	150	14
95°	28	83	388	254	208	25
105°	49	85	312	570	546	52
115°	75	99	244	490	572	74
125°	98	115	215	381	443	87
135°	112	133	195	305	355	87
145°	129	146	185	237	265	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	



TEST NUMBER: P333255-830

CATALOG NUMBER: S125DIP-S1090D365U830-4F0-1E-UDD-D4

CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	1297.9	1297.9	1297.9	1297.9	1297.9	1297.9	1297.9	1297.9	1297.9	1297.9	1297.9
2.5°	1300.9	1300.4	1300.0	1299.6	1299.1	1298.1	1296.5	1294.9	1293.4	1291.8	1293.4
5°	1297.9	1297.3	1296.8	1296.2	1295.6	1294.3	1292.3	1290.3	1288.4	1286.4	1288.6
7.5°	1286.4	1286.2	1285.9	1285.7	1285.5	1284.4	1282.3	1280.3	1278.3	1276.2	1278.2
10°	1276.2	1276.2	1276.2	1276.2	1276.2	1275.1	1272.8	1270.5	1268.3	1266.0	1268.0
12.5°	1262.0	1262.2	1262.4	1262.6	1262.9	1262.1	1260.3	1258.5	1256.7	1254.8	1256.4
15°	1239.3	1239.6	1239.9	1240.2	1240.5	1239.6	1237.7	1235.7	1233.7	1231.7	1233.4
17.5°	1209.8	1210.3	1210.9	1211.4	1212.0	1211.4	1209.4	1207.4	1205.4	1203.4	1204.8
20°	1188.5	1189.0	1189.6	1190.1	1190.7	1190.0	1188.0	1186.0	1184.0	1182.0	1182.9
22.5°	1163.9	1165.0	1166.0	1167.1	1168.1	1167.4	1165.3	1163.1	1160.8	1158.7	1159.7
25°	1126.1	1126.9	1127.8	1128.6	1129.4	1129.1	1127.4	1125.7	1124.0	1122.3	1123.4
27.5°	1083.8	1085.1	1086.3	1087.6	1088.8	1088.4	1086.6	1084.6	1082.7	1080.8	1081.6
30°	1052.3	1054.0	1055.6	1057.3	1059.0	1059.0	1057.3	1055.6	1054.0	1052.3	1052.8
32.5°	1023.8	1025.2	1026.7	1028.2	1029.6	1029.7	1028.5	1027.3	1026.1	1024.8	1025.4
35°	974.7	976.7	978.6	980.6	982.6	983.2	982.3	981.5	980.6	979.8	980.6
37.5°	925.6	927.4	929.2	930.9	932.7	933.6	933.3	933.0	932.7	932.5	933.6
40°	891.9	894.2	896.5	898.7	901.0	902.0	901.7	901.4	901.2	900.9	902.0
42.5°	855.3	858.3	861.2	864.1	867.0	868.8	869.5	870.1	870.7	871.4	872.7
45°	802.9	806.0	809.1	812.2	815.3	817.6	819.0	820.4	821.8	823.2	825.2
47.5°	749.2	752.1	755.0	757.8	760.7	763.4	765.8	768.3	770.7	773.1	776.0
50°	712.6	715.7	718.8	721.9	725.0	728.1	731.2	734.3	737.4	740.6	743.7
52.5°	673.8	677.7	681.5	685.2	689.0	692.8	696.6	700.4	704.2	707.9	711.3
55°	617.1	621.6	626.1	630.7	635.2	639.7	644.2	648.8	653.3	657.8	660.9
57.5°	559.1	564.5	570.0	575.4	580.8	586.2	591.4	596.5	601.7	606.9	610.5
60°	520.4	526.0	531.7	537.3	543.0	548.7	554.3	560.0	565.6	571.3	575.5
62.5°	482.8	488.4	494.1	499.7	505.4	511.2	517.4	523.5	529.6	535.6	540.4
65°	425.0	431.5	438.0	444.5	451.0	457.6	464.4	471.2	478.0	484.7	489.0
67.5°	370.5	376.8	383.0	389.4	395.6	402.2	409.2	416.0	422.9	429.8	435.0
70°	330.8	337.3	343.8	350.3	356.8	363.7	371.1	378.4	385.8	393.1	398.5
72.5°	292.2	298.9	305.6	312.4	319.1	326.4	334.5	342.5	350.5	358.5	364.4
75°	234.1	241.5	248.8	256.2	263.5	271.7	280.8	289.8	298.9	307.9	313.6
77.5°	178.4	186.9	195.4	203.9	212.4	220.9	229.6	238.4	247.0	255.7	261.9
80°	143.7	152.2	160.7	169.2	177.7	186.7	196.3	205.9	215.6	225.2	231.4
82.5°	112.3	121.1	130.1	139.0	148.0	157.3	167.2	177.0	186.9	196.7	202.7
85°	69.9	79.3	88.6	97.9	107.3	116.9	126.8	136.7	146.6	156.5	162.7
87.5°	39.8	48.9	58.1	67.2	76.4	85.9	95.6	105.3	115.0	124.7	131.3
90°	20.7	30.1	39.8	49.5	59.2	69.2	79.2	89.4	99.3	109.7	116.5
92.5°	22.4	31.6	42.8	55.3	69.4	88.2	116.2	156.6	199.5	207.6	193.5
95°	27.5	35.3	45.2	56.3	71.0	94.4	139.7	222.5	324.1	388.0	388.0
97.5°	33.3	40.2	48.7	59.0	72.3	91.0	123.9	186.8	292.3	401.7	457.9
100°	37.3	43.9	51.2	60.8	73.0	90.6	118.9	171.3	264.3	382.2	471.5
102.5°	41.8	47.8	54.3	63.7	75.0	91.9	117.9	163.2	242.8	352.9	455.9
105°	49.1	53.6	59.9	67.7	77.5	93.3	116.5	154.6	218.8	311.5	412.7
107.5°	56.1	60.6	66.1	72.7	82.0	96.4	118.8	152.2	205.8	282.0	370.0
110°	61.2	65.2	70.0	76.3	84.7	99.1	120.6	151.6	199.8	267.0	345.0



TEST NUMBER: P333255-830

CATALOG NUMBER: S125DIP-S1090D365U830-4F0-1E-UDD-D4

CANDELA DISTRIBUTION (continued):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	67.3	70.7	74.5	80.2	87.9	101.5	122.3	151.7	196.0	256.6	325.3
115°	74.9	77.6	80.6	85.5	92.5	105.5	125.2	151.8	191.1	243.5	302.2
117.5°	81.6	84.0	86.3	90.6	97.6	109.8	128.4	152.9	187.7	234.0	285.8
120°	87.0	88.8	91.0	94.8	101.3	113.4	131.5	154.0	186.2	228.3	276.1
122.5°	91.5	92.7	94.2	97.6	104.2	115.8	133.7	155.2	184.2	222.9	267.0
125°	98.4	98.8	100.1	102.8	108.9	120.3	136.9	156.8	181.8	215.2	254.3
127.5°	102.6	103.3	105.2	108.7	115.2	126.0	141.2	159.0	180.5	208.5	242.1
130°	106.0	106.8	109.1	113.2	120.0	130.4	144.7	161.4	180.3	204.9	234.9
132.5°	107.7	109.0	112.1	116.9	124.1	134.2	147.6	162.6	179.6	200.9	227.5
135°	111.8	112.8	116.6	121.6	128.4	138.2	150.4	163.4	177.8	194.7	217.4
137.5°	117.0	117.8	121.3	126.4	133.0	142.7	153.0	164.5	177.2	190.6	209.1
140°	119.2	120.2	124.2	129.5	135.8	145.0	155.0	165.2	176.2	187.8	204.2
142.5°	122.9	123.5	127.0	132.1	137.9	146.3	155.4	164.9	175.1	186.0	200.4
145°	128.6	128.9	132.0	136.3	142.0	149.6	158.3	166.5	175.5	185.2	196.6
147.5°	133.1	133.5	136.4	140.7	145.9	152.6	160.2	167.8	175.9	184.4	193.6
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



TEST NUMBER: P333255-830

CATALOG NUMBER: S125DIP-S1090D365U830-4F0-1E-UDD-D4

CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
0°	1297.9	1297.9	1297.9	1297.9	1297.9	1297.9	1297.9	1297.9
2.5°	1294.9	1296.5	1298.1	1298.7	1298.5	1298.3	1298.1	1297.9
5°	1290.9	1293.2	1295.4	1296.5	1296.2	1295.9	1295.6	1295.3
7.5°	1280.2	1282.1	1284.1	1285.0	1284.7	1284.4	1284.1	1283.8
10°	1270.0	1272.0	1273.9	1274.8	1274.5	1274.2	1273.9	1273.7
12.5°	1257.9	1259.4	1260.9	1261.3	1260.7	1259.9	1259.1	1258.4
15°	1235.1	1236.8	1238.5	1238.8	1237.7	1236.5	1235.4	1234.3
17.5°	1206.1	1207.3	1208.6	1208.9	1208.2	1207.6	1206.9	1206.3
20°	1183.7	1184.6	1185.4	1185.9	1185.9	1185.9	1185.9	1185.9
22.5°	1160.8	1161.9	1162.9	1163.1	1162.4	1161.8	1161.1	1160.5
25°	1124.5	1125.7	1126.8	1126.6	1125.2	1123.8	1122.4	1121.0
27.5°	1082.3	1083.2	1083.9	1084.1	1083.5	1083.1	1082.5	1082.0
30°	1053.4	1054.0	1054.5	1054.7	1054.4	1054.1	1053.9	1053.6
32.5°	1026.0	1026.5	1027.1	1027.2	1026.9	1026.6	1026.3	1026.1
35°	981.5	982.3	983.2	983.5	983.5	983.5	983.5	983.5
37.5°	934.7	935.9	937.0	937.5	937.4	937.3	937.1	937.0
40°	903.1	904.3	905.4	906.3	906.8	907.4	908.0	908.5
42.5°	874.0	875.4	876.8	877.5	877.6	877.7	877.9	878.0
45°	827.2	829.2	831.1	832.3	832.5	832.8	833.1	833.4
47.5°	778.9	781.7	784.7	786.4	787.0	787.7	788.2	788.9
50°	746.8	749.9	753.0	755.0	755.8	756.7	757.5	758.4
52.5°	714.6	717.9	721.3	723.3	723.9	724.5	725.2	725.8
55°	664.0	667.1	670.2	672.4	673.5	674.7	675.8	676.9
57.5°	614.1	617.6	621.2	623.4	624.2	625.1	625.9	626.8
60°	579.8	584.0	588.2	590.8	591.6	592.5	593.3	594.2
62.5°	545.1	549.8	554.5	557.3	558.5	559.5	560.5	561.7
65°	493.2	497.5	501.7	504.4	505.6	506.7	507.8	509.0
67.5°	440.1	445.3	450.4	453.7	455.2	456.7	458.1	459.6
70°	403.9	409.3	414.6	418.2	419.9	421.6	423.3	425.0
72.5°	370.2	376.1	381.8	385.4	386.6	387.9	389.1	390.4
75°	319.2	324.9	330.5	334.0	335.5	336.9	338.3	339.7
77.5°	268.2	274.4	280.6	284.3	285.4	286.5	287.7	288.8
80°	237.6	243.8	250.1	253.7	254.9	256.0	257.1	258.3
82.5°	208.7	214.7	220.6	224.7	226.8	228.8	230.8	232.8
85°	168.9	175.1	181.3	185.6	187.8	190.1	192.4	194.6
87.5°	137.9	144.5	151.0	155.4	157.4	159.4	161.4	163.3
90°	123.4	130.2	137.0	141.9	143.9	145.9	148.2	150.1
92.5°	171.8	161.9	157.6	156.8	154.6	155.7	157.2	158.6
95°	344.9	300.4	265.7	241.8	220.1	212.1	211.4	208.0
97.5°	455.1	425.6	391.5	356.6	337.9	321.2	313.4	311.1
100°	503.0	492.7	464.3	433.5	412.2	389.8	379.3	375.6
102.5°	516.3	532.2	521.4	501.6	478.7	463.4	451.7	449.4
105°	498.3	549.6	570.0	570.1	561.4	552.4	547.7	545.7
107.5°	454.6	521.0	564.3	585.3	592.5	594.2	593.7	592.9
110°	422.4	491.0	543.3	575.3	592.3	600.6	604.9	606.9



TEST NUMBER: P333255-830

CATALOG NUMBER: S125DIP-S1090D365U830-4F0-1E-UDD-D4

CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
112.5°	396.0	461.2	513.8	550.7	574.7	587.5	595.3	599.6
115°	362.2	419.0	469.7	509.4	537.1	554.8	565.8	571.8
117.5°	337.9	387.2	431.3	468.0	495.9	514.3	525.5	530.1
120°	324.2	369.0	410.5	443.0	469.4	487.0	497.8	502.1
122.5°	312.5	354.1	391.3	421.9	445.6	461.9	472.7	476.7
125°	295.8	334.3	367.8	394.7	414.8	429.9	438.7	443.4
127.5°	278.6	314.5	345.7	371.1	389.6	403.4	411.9	415.0
130°	268.4	301.7	331.7	356.0	374.1	386.4	394.5	397.9
132.5°	257.7	289.1	316.7	340.1	357.9	370.1	377.4	380.9
135°	242.4	269.0	294.1	315.6	331.7	344.0	351.5	354.9
137.5°	229.8	251.8	272.8	291.2	305.4	316.5	323.2	326.5
140°	222.3	241.0	259.5	275.6	289.1	298.9	305.0	307.7
142.5°	215.8	231.8	247.6	261.6	273.2	281.7	287.6	290.1
145°	208.4	220.1	231.9	242.1	251.2	258.1	262.8	265.3
147.5°	202.2	211.0	219.4	226.7	233.5	238.6	241.2	242.3
150°	198.9	206.2	212.5	218.7	223.9	228.2	229.8	230.5
152.5°	196.2	202.7	208.5	213.2	217.4	220.7	222.2	222.5
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)