

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: P333264-830

Luminaire Tested: **S125DIP-S1090D590U830-4F0-1E-UDD-D4**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P333264-830
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-S1090D590U830-4F0-1E-UDD-D4
Description: DEFINE 5 DIRECT-INDIRECT PENDANT LED LUMINAIRE
DOWNLIGHT 1090 LUMENS PER FOOT, DROP SATIN WHITE DIFFUSER
UPLIGHT 590 LUMENS PER FOOT, BATWING OPTIC
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 6021.1 lumens
Efficiency: N/A
Efficacy: 123.4 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

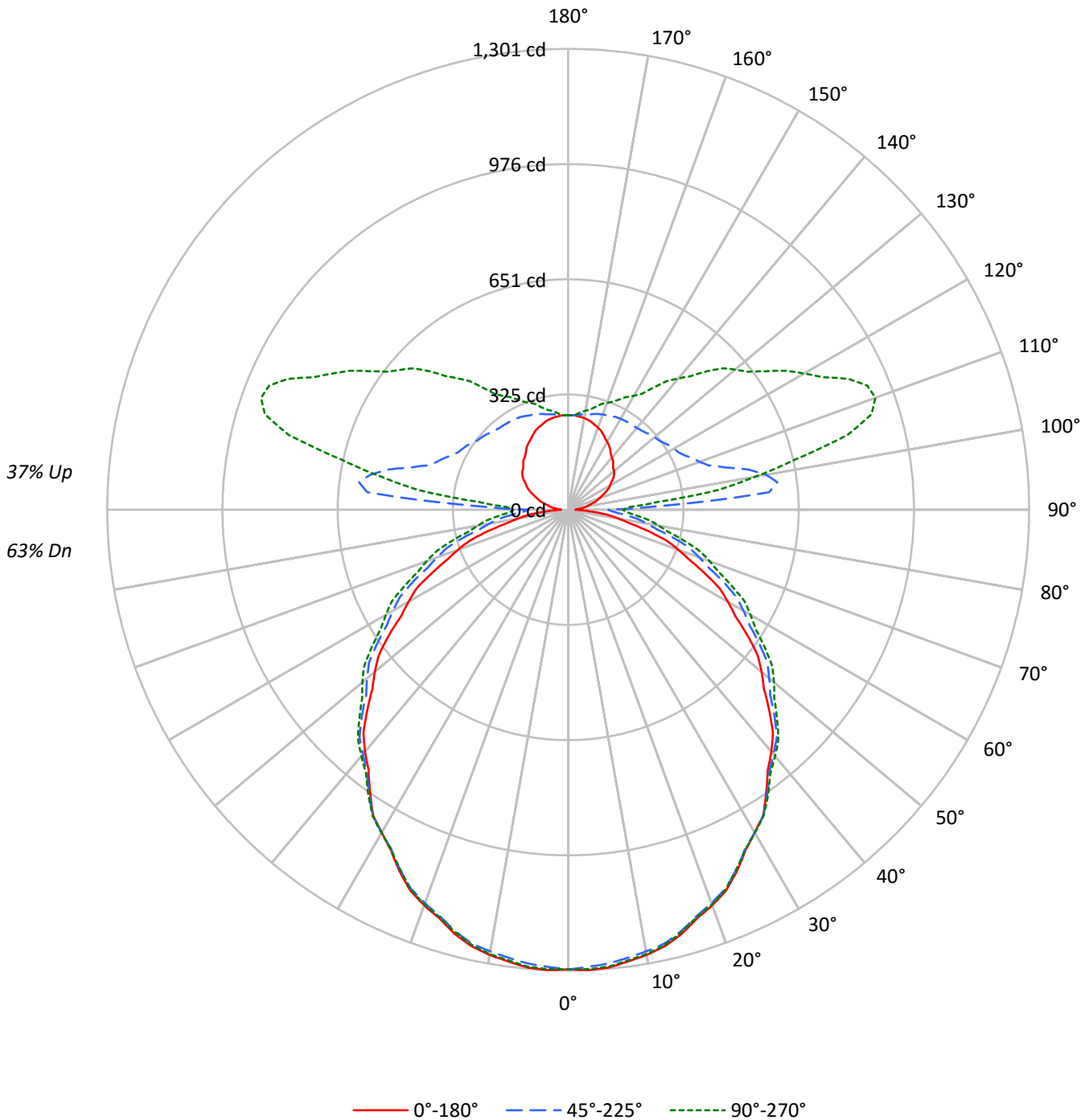
Input Watts (W): 48.8
Input Voltage (V): 120
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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		79	79	79		68	68	68	63
1	100	95	91	87	93	89	85	82	78	75	72		68	66	64		58	57	55	51
2	90	82	76	70	84	77	71	66	68	63	59		59	56	52		51	48	46	42
3	82	72	64	58	77	68	61	55	60	54	49		52	48	44		45	42	39	35
4	75	64	55	49	70	60	52	47	53	47	42		46	41	37		40	36	33	30
5	69	57	48	42	64	53	46	40	47	41	36		41	36	32		36	32	29	26
6	64	51	42	36	59	48	40	35	42	36	31		37	32	28		32	28	25	22
7	59	46	38	32	55	43	36	30	38	32	28		34	29	25		30	26	22	20
8	55	42	34	28	51	39	32	27	35	29	25		31	26	22		27	23	20	18
9	51	38	30	25	48	36	29	24	32	26	22		29	24	20		25	21	18	16
10	48	35	28	23	45	33	26	22	30	24	20		26	22	18		23	19	16	14

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



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	122.7	2.0
10°-20°	348.4	5.8
20°-30°	518.1	8.6
30°-40°	613.7	10.2
40°-50°	634.5	10.5
50°-60°	584.5	9.7
60°-70°	472.5	7.8
70°-80°	316.4	5.3
80°-90°	165.6	2.7
90°-100°	285.4	4.7
100°-110°	483.4	8.0
110°-120°	435.5	7.2
120°-130°	341.9	5.7
130°-140°	264.9	4.4
140°-150°	193.7	3.2
150°-160°	134.7	2.2
160°-170°	79.4	1.3
170°-180°	25.8	0.4
0°-30°	989.2	16.4
0°-40°	1602.9	26.6
0°-60°	2821.9	46.9
0°-90°	3776.4	62.7
90°-120°	1204.3	20.0
90°-150°	2004.7	33.3
90°-180°	2245.0	37.3
0°-180°	6021.1	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	66	113	144	155	15
95°	34	103	569	336	256	32
105°	72	118	460	862	817	76
115°	116	149	362	746	874	114
125°	156	182	329	585	681	138
135°	179	214	308	476	552	139
145°	207	235	299	379	421	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°	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	58.2	67.5	76.7	86.3	96.0	105.8	115.6	125.4	132.1
90°	20.9	30.4	40.6	50.7	60.9	71.3	81.4	92.1	102.3	112.9	120.0
92.5°	24.9	34.7	47.5	62.6	80.2	105.0	144.2	203.3	266.6	273.6	246.9
95°	34.3	42.1	53.8	67.1	86.2	118.9	186.1	314.0	472.0	569.2	565.2
97.5°	44.5	51.7	61.4	73.9	91.1	116.5	163.9	259.8	424.3	595.2	682.3
100°	51.7	58.6	66.7	78.6	94.7	118.4	158.6	237.5	382.1	566.9	707.3
102.5°	59.7	65.8	73.0	84.8	99.6	122.5	159.1	226.6	349.9	522.0	684.9
105°	72.2	76.7	84.0	93.9	107.0	128.6	160.7	217.0	315.3	459.8	619.7
107.5°	84.5	89.4	95.8	104.1	116.8	136.4	167.4	216.5	297.8	415.9	554.7
110°	93.3	97.7	103.3	111.6	123.0	142.7	172.6	217.6	290.6	394.3	516.8



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CANDELA DISTRIBUTION (continued):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	103.2	107.0	111.4	118.9	129.8	148.5	177.4	220.0	286.7	379.8	487.6
115°	116.2	119.3	122.9	129.7	139.8	157.9	185.1	223.7	282.6	362.5	454.2
117.5°	127.9	130.8	133.8	140.0	150.4	167.5	193.3	228.7	280.4	350.9	431.6
120°	136.5	138.9	141.9	147.6	157.6	174.7	200.0	232.3	280.2	344.3	418.5
122.5°	144.5	146.1	148.2	153.4	163.8	180.6	205.7	236.5	279.5	338.1	406.4
125°	155.6	156.5	158.8	163.3	173.3	190.0	213.4	242.1	279.0	329.2	389.7
127.5°	163.2	164.7	167.8	173.6	184.2	200.4	222.1	248.0	279.8	322.2	373.8
130°	168.9	170.2	174.2	181.0	191.9	207.7	228.4	252.8	281.0	318.2	364.1
132.5°	172.2	174.2	179.3	187.0	198.7	214.1	233.9	256.1	281.6	314.1	354.9
135°	178.9	180.8	186.9	195.3	206.2	221.6	240.3	260.0	281.8	308.0	342.3
137.5°	187.5	188.9	194.6	203.0	213.9	229.2	245.3	263.3	283.1	304.1	332.0
140°	191.6	193.2	199.6	208.3	218.5	233.2	249.0	265.4	283.0	301.5	326.1
142.5°	197.7	198.6	204.3	212.7	222.3	235.9	250.7	266.0	282.4	299.9	321.5
145°	206.7	207.5	212.5	219.8	229.2	241.4	255.4	268.8	283.3	299.0	316.5
147.5°	214.8	215.5	220.1	227.1	235.4	246.4	258.6	270.8	283.9	297.6	312.2
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°	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°	138.6	145.2	151.8	156.3	158.3	160.2	162.3	164.3
90°	127.1	134.0	141.1	146.4	148.4	150.3	152.9	154.9
92.5°	208.1	188.2	177.4	173.6	168.7	169.4	170.6	171.7
95°	491.9	416.4	356.5	315.5	279.3	265.0	262.8	256.1
97.5°	674.1	622.7	564.3	505.4	474.1	445.9	432.3	427.3
100°	754.6	734.2	684.8	632.6	597.3	560.2	542.1	535.2
102.5°	778.9	800.9	780.0	745.8	707.8	682.0	662.1	657.4
105°	754.4	833.8	863.1	860.9	845.7	830.0	821.2	816.7
107.5°	687.6	791.5	857.8	889.6	900.0	901.6	899.8	897.3
110°	638.3	745.8	827.0	876.4	902.6	914.7	920.5	922.5



TEST NUMBER: P333264-830

CATALOG NUMBER: S125DIP-S1090D590U830-4F0-1E-UDD-D4

CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
112.5°	598.5	700.7	782.5	839.9	877.2	896.7	908.1	914.0
115°	548.0	636.4	715.2	777.1	820.8	848.3	865.1	873.7
117.5°	512.7	589.4	657.6	714.7	758.6	787.2	804.1	810.3
120°	493.1	562.5	626.4	677.0	718.5	746.0	762.2	768.2
122.5°	477.0	541.4	598.7	646.1	683.2	708.6	724.8	730.4
125°	453.9	513.3	564.6	606.2	637.8	661.3	674.5	681.3
127.5°	430.2	485.6	533.4	572.5	601.5	622.6	635.5	639.4
130°	415.9	467.2	513.1	550.7	579.0	598.1	610.4	615.0
132.5°	401.1	449.4	491.3	527.6	555.7	574.6	585.7	590.5
135°	380.4	421.2	459.3	492.5	517.6	536.7	547.8	552.4
137.5°	363.4	396.7	428.7	456.9	479.2	496.4	506.5	511.2
140°	353.4	381.8	409.6	434.3	455.3	470.4	479.7	483.4
142.5°	344.9	368.9	392.9	414.3	432.3	445.4	454.1	457.5
145°	334.6	352.6	370.7	386.5	400.6	410.9	417.8	421.1
147.5°	325.7	339.8	353.0	364.5	375.1	383.0	386.9	388.4
150°	320.9	332.8	343.0	352.9	361.2	368.0	370.3	371.2
152.5°	316.7	327.3	336.6	344.1	351.0	356.2	358.4	359.0
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)