

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

Luminaire Tested: **S125DIP-S1090D365U835-4F0-1E-UDD-D4**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P333255  
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-S1090D365U835-4F0-1E-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: 5580.4 lumens  
Efficiency: N/A  
Efficacy: 128.3 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

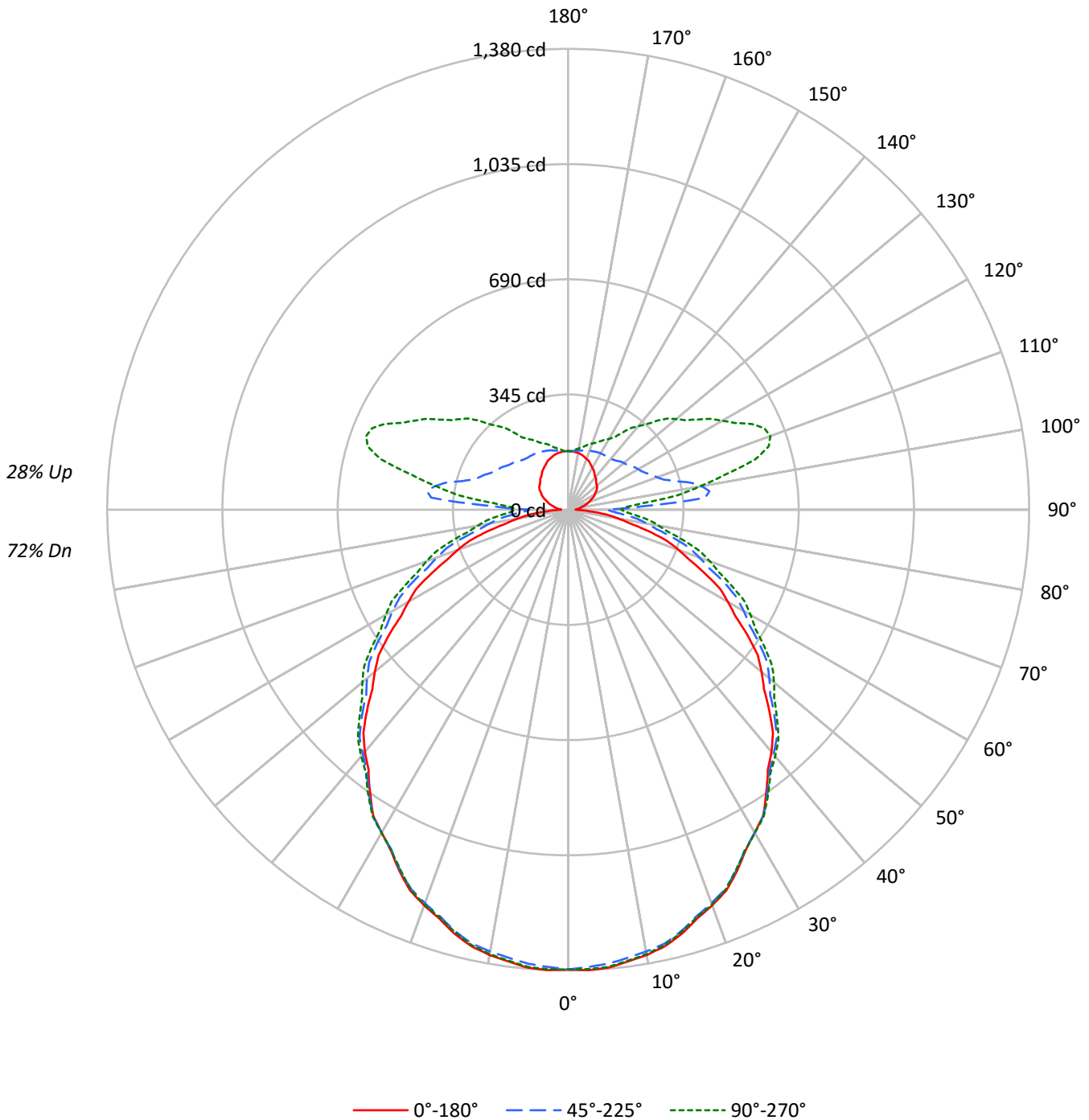
Input Watts (W): 43.5  
Input Voltage (V): 120  
Input Current (A<sub>in</sub>): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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	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°	8893	8893	8893
5°	8911	8729	8756
10°	8847	8573	8560
15°	8743	8387	8310
20°	8601	8156	8061
25°	8432	7909	7752
30°	8227	7637	7473
35°	8036	7388	7217
40°	7841	7125	6959
45°	7621	6900	6730
50°	7412	6656	6528
55°	7159	6425	6290
60°	6883	6162	6048
65°	6596	5888	5775
70°	6269	5512	5495
75°	5751	5151	5149
80°	5072	4712	4775
85°	4441	4417	4657



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	130.2	2.3
10°-20°	369.6	6.6
20°-30°	549.7	9.9
30°-40°	651.1	11.7
40°-50°	673.2	12.1
50°-60°	620.1	11.1
60°-70°	501.3	9.0
70°-80°	335.7	6.0
80°-90°	175.1	3.1
90°-100°	224.7	4.0
100°-110°	345.2	6.2
110°-120°	304.6	5.5
120°-130°	235.2	4.2
130°-140°	178.7	3.2
140°-150°	128.2	2.3
150°-160°	88.6	1.6
160°-170°	52.2	0.9
170°-180°	17.0	0.3
0°-30°	1049.5	18.8
0°-40°	1700.6	30.5
0°-60°	2994.0	53.7
0°-90°	4006.0	71.8
90°-120°	874.5	15.7
90°-150°	1416.6	25.4
90°-180°	1574.0	28.2
0°-180°	5580.4	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1377	1377	1377	1377	1377	
5°	1377	1374	1365	1375	1374	131
15°	1315	1316	1307	1314	1310	370
25°	1195	1198	1191	1195	1189	550
35°	1034	1043	1040	1043	1044	647
45°	852	866	873	882	884	657
55°	655	676	698	712	718	585
65°	451	482	514	534	540	447
75°	248	284	327	353	360	263
85°	74	119	166	195	206	79
90°	22	68	116	148	159	15
95°	29	88	412	269	221	26
105°	52	91	330	605	579	55
115°	80	105	258	519	607	78
125°	104	122	228	404	470	92
135°	119	141	207	323	376	92
145°	136	155	196	251	282	85
155°	154	166	192	216	226	71
165°	168	173	184	195	198	47
175°	175	175	176	178	178	17
180°	175	175	175	175	175	



TEST NUMBER: P333255

CATALOG NUMBER: S125DIP-S1090D365U835-4F0-1E-UDD-D4

**CANDELA DISTRIBUTION (FULL):**

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	1377.0	1377.0	1377.0	1377.0	1377.0	1377.0	1377.0	1377.0	1377.0	1377.0	1377.0
2.5°	1380.2	1379.7	1379.2	1378.8	1378.3	1377.2	1375.5	1373.8	1372.2	1370.5	1372.2
5°	1377.0	1376.4	1375.8	1375.2	1374.6	1373.2	1371.1	1369.0	1366.9	1364.8	1367.2
7.5°	1364.8	1364.6	1364.3	1364.1	1363.9	1362.7	1360.5	1358.3	1356.2	1354.0	1356.1
10°	1354.0	1354.0	1354.0	1354.0	1354.0	1352.8	1350.4	1348.0	1345.6	1343.2	1345.3
12.5°	1338.9	1339.1	1339.4	1339.6	1339.9	1339.0	1337.1	1335.2	1333.3	1331.3	1333.0
15°	1314.9	1315.2	1315.5	1315.8	1316.1	1315.2	1313.1	1311.0	1308.9	1306.8	1308.6
17.5°	1283.5	1284.1	1284.7	1285.3	1285.9	1285.2	1283.1	1281.0	1278.9	1276.8	1278.2
20°	1260.9	1261.5	1262.1	1262.7	1263.3	1262.5	1260.4	1258.3	1256.2	1254.1	1255.0
22.5°	1234.9	1236.0	1237.1	1238.2	1239.3	1238.6	1236.3	1234.0	1231.6	1229.3	1230.4
25°	1194.7	1195.6	1196.5	1197.4	1198.3	1197.9	1196.1	1194.3	1192.5	1190.7	1191.9
27.5°	1149.9	1151.2	1152.5	1153.9	1155.2	1154.8	1152.8	1150.7	1148.7	1146.7	1147.5
30°	1116.4	1118.2	1120.0	1121.8	1123.6	1123.6	1121.8	1120.0	1118.2	1116.4	1117.0
32.5°	1086.2	1087.7	1089.3	1090.9	1092.4	1092.5	1091.2	1089.9	1088.6	1087.3	1087.9
35°	1034.1	1036.2	1038.3	1040.4	1042.5	1043.1	1042.2	1041.3	1040.4	1039.5	1040.4
37.5°	982.0	983.9	985.8	987.7	989.6	990.5	990.2	989.9	989.6	989.3	990.5
40°	946.3	948.7	951.1	953.5	955.9	957.0	956.7	956.4	956.1	955.8	957.0
42.5°	907.4	910.6	913.7	916.8	919.9	921.8	922.5	923.1	923.8	924.5	925.9
45°	851.8	855.1	858.4	861.7	865.0	867.4	868.9	870.4	871.9	873.4	875.5
47.5°	794.9	797.9	801.0	804.0	807.1	809.9	812.5	815.1	817.7	820.2	823.3
50°	756.0	759.3	762.6	765.9	769.2	772.5	775.8	779.1	782.4	785.7	789.0
52.5°	714.9	719.0	723.0	727.0	731.0	735.0	739.1	743.1	747.1	751.1	754.7
55°	654.7	659.5	664.3	669.1	673.9	678.7	683.5	688.3	693.1	697.9	701.2
57.5°	593.2	598.9	604.7	610.5	616.2	621.9	627.4	632.9	638.4	643.9	647.7
60°	552.1	558.1	564.1	570.1	576.1	582.1	588.1	594.1	600.1	606.1	610.6
62.5°	512.2	518.2	524.2	530.2	536.2	542.4	548.9	555.4	561.9	568.3	573.3
65°	450.9	457.8	464.7	471.6	478.5	485.5	492.7	499.9	507.1	514.3	518.8
67.5°	393.1	399.8	406.4	413.1	419.7	426.7	434.1	441.4	448.7	456.0	461.5
70°	351.0	357.9	364.8	371.7	378.6	385.9	393.7	401.5	409.3	417.1	422.8
72.5°	310.0	317.1	324.2	331.4	338.5	346.3	354.9	363.4	371.9	380.4	386.6
75°	248.4	256.2	264.0	271.8	279.6	288.3	297.9	307.5	317.1	326.7	332.7
77.5°	189.3	198.3	207.3	216.3	225.3	234.4	243.6	252.9	262.1	271.3	277.9
80°	152.5	161.5	170.5	179.5	188.5	198.1	208.3	218.5	228.7	238.9	245.5
82.5°	119.1	128.5	138.0	147.5	157.0	166.9	177.4	187.8	198.3	208.7	215.1
85°	74.2	84.1	94.0	103.9	113.8	124.0	134.5	145.0	155.5	166.0	172.6
87.5°	42.2	51.9	61.6	71.3	81.1	91.1	101.4	111.7	122.0	132.3	139.3
90°	22.0	31.9	42.2	52.5	62.8	73.4	84.0	94.9	105.4	116.4	123.6
92.5°	23.8	33.5	45.4	58.7	73.6	93.6	123.3	166.1	211.7	220.3	205.3
95°	29.2	37.4	48.0	59.7	75.3	100.2	148.2	236.1	343.9	411.7	411.6
97.5°	35.3	42.7	51.7	62.6	76.7	96.5	131.4	198.2	310.1	426.2	485.8
100°	39.6	46.6	54.3	64.5	77.5	96.1	126.2	181.7	280.4	405.5	500.2
102.5°	44.4	50.7	57.6	67.6	79.6	97.5	125.1	173.1	257.6	374.4	483.7
105°	52.1	56.9	63.5	71.8	82.2	99.0	123.6	164.0	232.1	330.5	437.9
107.5°	59.5	64.3	70.1	77.1	87.0	102.3	126.0	161.5	218.3	299.2	392.6
110°	64.9	69.2	74.3	81.0	89.9	105.1	128.0	160.8	212.0	283.3	366.0



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**CANDELA DISTRIBUTION (continued):**

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	71.4	75.0	79.0	85.1	93.3	107.7	129.8	160.9	207.9	272.2	345.1
115°	79.5	82.3	85.5	90.7	98.1	111.9	132.8	161.1	202.8	258.3	320.6
117.5°	86.6	89.1	91.6	96.1	103.5	116.5	136.2	162.2	199.1	248.3	303.2
120°	92.3	94.2	96.5	100.6	107.5	120.3	139.5	163.4	197.5	242.2	292.9
122.5°	97.1	98.3	99.9	103.5	110.5	122.9	141.9	164.7	195.4	236.5	283.3
125°	104.4	104.8	106.2	109.1	115.5	127.6	145.2	166.4	192.9	228.3	269.8
127.5°	108.9	109.6	111.6	115.3	122.2	133.7	149.8	168.7	191.5	221.2	256.9
130°	112.5	113.3	115.8	120.1	127.3	138.4	153.5	171.2	191.3	217.4	249.2
132.5°	114.3	115.6	118.9	124.0	131.7	142.4	156.6	172.5	190.5	213.1	241.4
135°	118.6	119.7	123.7	129.0	136.2	146.6	159.6	173.4	188.6	206.6	230.6
137.5°	124.1	125.0	128.7	134.1	141.1	151.4	162.3	174.5	188.0	202.2	221.8
140°	126.5	127.5	131.8	137.4	144.1	153.8	164.4	175.3	186.9	199.2	216.6
142.5°	130.4	131.0	134.7	140.1	146.3	155.2	164.9	175.0	185.8	197.3	212.6
145°	136.4	136.8	140.0	144.6	150.7	158.7	167.9	176.7	186.2	196.5	208.6
147.5°	141.2	141.6	144.7	149.3	154.8	161.9	170.0	178.0	186.6	195.6	205.4
150°	144.9	145.6	148.1	152.7	157.6	163.6	171.4	178.8	186.6	194.7	203.2
152.5°	148.9	149.3	151.5	155.5	160.2	165.6	172.8	179.4	186.3	193.6	201.2
155°	154.1	154.1	156.2	159.7	163.3	168.2	174.2	179.9	185.5	191.6	197.9
157.5°	158.8	158.7	160.4	163.4	166.5	170.3	175.4	180.2	184.6	189.4	194.8
160°	161.9	161.5	162.9	165.4	168.2	171.4	176.0	180.2	183.8	188.0	192.3
162.5°	164.4	164.1	165.5	167.7	169.9	172.5	176.6	180.0	182.9	186.3	190.0
165°	168.2	167.5	168.6	170.3	171.8	173.9	176.7	179.5	181.7	183.8	186.6
167.5°	170.8	170.4	171.1	172.0	173.0	174.4	176.7	178.7	179.7	181.3	183.3
170°	172.5	172.1	172.5	173.2	173.9	174.9	176.7	178.1	178.8	179.9	181.3
172.5°	173.6	173.0	173.3	174.0	174.4	174.9	176.4	177.6	177.7	178.2	179.3
175°	174.9	174.2	174.6	174.9	174.9	174.9	176.0	176.7	176.4	176.4	176.7
177.5°	175.6	175.0	175.0	175.3	175.0	175.0	175.6	175.9	175.3	175.3	175.6
180°	175.3	175.3	175.3	175.3	175.3	175.3	175.3	175.3	175.3	175.3	175.3



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**CANDELA DISTRIBUTION (continued):**

	55°	60°	65°	70°	75°	80°	85°	90°
0°	1377.0	1377.0	1377.0	1377.0	1377.0	1377.0	1377.0	1377.0
2.5°	1373.8	1375.5	1377.2	1377.9	1377.7	1377.4	1377.2	1377.0
5°	1369.6	1372.0	1374.4	1375.5	1375.2	1374.9	1374.6	1374.3
7.5°	1358.2	1360.3	1362.4	1363.3	1363.0	1362.7	1362.4	1362.1
10°	1347.4	1349.5	1351.6	1352.5	1352.2	1351.9	1351.6	1351.3
12.5°	1334.6	1336.2	1337.8	1338.2	1337.5	1336.7	1335.9	1335.1
15°	1310.4	1312.2	1314.0	1314.3	1313.1	1311.9	1310.7	1309.5
17.5°	1279.6	1280.9	1282.3	1282.6	1281.9	1281.2	1280.5	1279.8
20°	1255.9	1256.8	1257.7	1258.2	1258.2	1258.2	1258.2	1258.2
22.5°	1231.6	1232.7	1233.8	1234.0	1233.3	1232.6	1231.9	1231.2
25°	1193.1	1194.3	1195.5	1195.3	1193.8	1192.3	1190.8	1189.3
27.5°	1148.3	1149.2	1150.0	1150.2	1149.6	1149.1	1148.5	1148.0
30°	1117.6	1118.2	1118.8	1119.0	1118.7	1118.4	1118.1	1117.8
32.5°	1088.5	1089.1	1089.7	1089.8	1089.5	1089.2	1088.9	1088.6
35°	1041.3	1042.2	1043.1	1043.5	1043.5	1043.5	1043.5	1043.5
37.5°	991.7	992.9	994.1	994.6	994.5	994.4	994.2	994.1
40°	958.2	959.4	960.6	961.5	962.1	962.7	963.3	963.9
42.5°	927.3	928.8	930.2	931.0	931.1	931.2	931.4	931.5
45°	877.6	879.7	881.8	883.0	883.3	883.6	883.9	884.2
47.5°	826.4	829.4	832.5	834.3	835.0	835.7	836.3	837.0
50°	792.3	795.6	798.9	801.0	801.9	802.8	803.7	804.6
52.5°	758.2	761.7	765.3	767.4	768.0	768.7	769.4	770.0
55°	704.5	707.8	711.1	713.4	714.6	715.8	717.0	718.2
57.5°	651.5	655.3	659.1	661.4	662.3	663.2	664.1	665.0
60°	615.1	619.6	624.1	626.8	627.7	628.6	629.5	630.4
62.5°	578.3	583.3	588.3	591.3	592.5	593.6	594.7	595.9
65°	523.3	527.8	532.3	535.2	536.4	537.6	538.8	540.0
67.5°	466.9	472.4	477.9	481.4	482.9	484.5	486.0	487.6
70°	428.5	434.2	439.9	443.7	445.5	447.3	449.1	450.9
72.5°	392.8	399.0	405.1	408.9	410.2	411.5	412.8	414.2
75°	338.7	344.7	350.7	354.4	355.9	357.4	358.9	360.4
77.5°	284.5	291.1	297.7	301.6	302.8	304.0	305.2	306.4
80°	252.1	258.7	265.3	269.2	270.4	271.6	272.8	274.0
82.5°	221.4	227.8	234.1	238.4	240.6	242.7	244.9	247.0
85°	179.2	185.8	192.4	196.9	199.3	201.7	204.1	206.5
87.5°	146.3	153.3	160.2	164.9	167.0	169.1	171.2	173.3
90°	130.9	138.1	145.4	150.6	152.7	154.8	157.2	159.3
92.5°	182.3	171.8	167.2	166.4	164.0	165.2	166.8	168.3
95°	365.9	318.7	281.9	256.5	233.5	225.0	224.3	220.7
97.5°	482.8	451.5	415.4	378.3	358.5	340.8	332.5	330.1
100°	533.7	522.7	492.6	459.9	437.3	413.6	402.4	398.5
102.5°	547.8	564.6	553.2	532.2	507.9	491.6	479.2	476.8
105°	528.7	583.1	604.7	604.9	595.6	586.1	581.1	579.0
107.5°	482.3	552.8	598.7	621.0	628.6	630.4	629.9	629.0
110°	448.1	520.9	576.4	610.4	628.4	637.2	641.8	643.9





TEST NUMBER: P333255

CATALOG NUMBER: S125DIP-S1090D365U835-4F0-1E-UDD-D4

**CANDELA DISTRIBUTION (continued):**

	55°	60°	65°	70°	75°	80°	85°	90°
112.5°	420.1	489.3	545.1	584.3	609.7	623.3	631.6	636.2
115°	384.3	444.5	498.3	540.5	569.8	588.6	600.3	606.7
117.5°	358.5	410.8	457.6	496.5	526.1	545.7	557.5	562.4
120°	344.0	391.5	435.5	470.0	498.0	516.7	528.1	532.7
122.5°	331.5	375.7	415.2	447.6	472.8	490.1	501.5	505.8
125°	313.8	354.7	390.2	418.8	440.1	456.1	465.4	470.4
127.5°	295.6	333.7	366.8	393.7	413.4	428.0	437.0	440.3
130°	284.8	320.1	351.9	377.7	396.9	410.0	418.6	422.2
132.5°	273.4	306.7	336.0	360.8	379.7	392.7	400.4	404.1
135°	257.2	285.4	312.0	334.8	351.9	365.0	372.9	376.5
137.5°	243.8	267.1	289.4	308.9	324.0	335.8	342.9	346.4
140°	235.8	255.7	275.3	292.4	306.7	317.1	323.6	326.5
142.5°	229.0	245.9	262.7	277.6	289.9	298.9	305.1	307.8
145°	221.1	233.5	246.0	256.9	266.5	273.8	278.8	281.5
147.5°	214.5	223.9	232.8	240.5	247.7	253.1	255.9	257.1
150°	211.0	218.8	225.5	232.0	237.6	242.1	243.8	244.5
152.5°	208.2	215.1	221.2	226.2	230.7	234.2	235.7	236.1
155°	203.9	209.6	214.5	218.4	221.9	224.4	225.5	225.8
157.5°	199.7	204.3	208.2	211.2	214.0	216.0	217.0	216.9
160°	196.9	200.4	203.9	206.4	208.9	210.6	211.3	211.0
162.5°	193.7	197.0	200.0	202.2	204.1	205.5	205.7	205.6
165°	189.4	191.9	194.0	195.8	197.2	197.9	197.9	197.9
167.5°	185.3	187.0	188.6	189.9	190.6	191.2	190.9	190.8
170°	183.1	184.1	185.2	185.9	186.6	187.0	187.0	186.6
172.5°	180.5	181.6	182.4	182.8	182.9	183.6	183.0	182.6
175°	177.8	177.8	178.5	178.5	178.5	178.8	178.1	177.8
177.5°	175.9	176.1	176.1	176.1	175.9	176.1	175.3	175.3
180°	175.3	175.3	175.3	175.3	175.3	175.3	175.3	175.3

(END OF REPORT)