

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: P333254-840

Luminaire Tested: **S125DIP-S1090D365U840-4F0-1E-UDD-D1**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P333254-840  
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1807-864-11,  
Test Lab: INNOVATION CENTER  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: NEO-RAY  
Catalog Number: S125DIP-S1090D365U840-4F0-1E-UDD-D1  
Description: DEFINE 5 DIRECT-INDIRECT PENDANT LED LUMINAIRE  
DOWNLIGHT 1090 LUMENS PER FOOT, DROP SATIN WHITE DIFFUSER  
UPLIGHT 365 LUMENS PER FOOT, FLUSH SATIN WHITE DIFFUSER  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 5587.8 lumens  
Efficiency: N/A  
Efficacy: 128.5 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

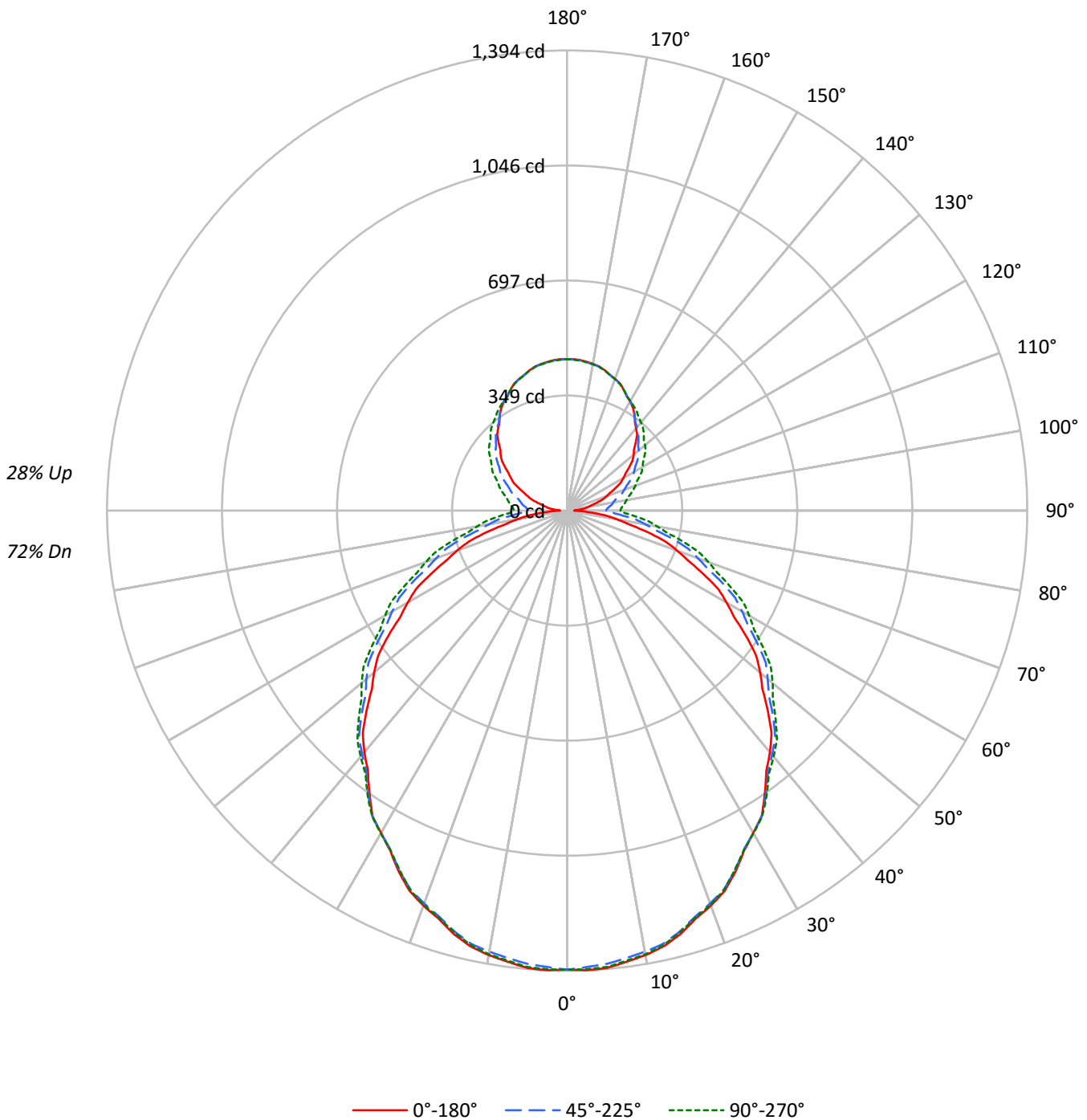
Input Watts (W): 43.5  
Input Voltage (V): 120  
Input Current (A<sub>in</sub>): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



TEST NUMBER: P333254-840

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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	102	97	92	88	96	92	88	84	83	79	77	74	72	69	66	64	63	59
2	92	84	77	71	87	80	74	68	72	67	63	64	61	57	58	55	52	48
3	84	74	65	59	79	70	63	57	63	57	52	57	52	48	51	47	44	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	40	35	41	36	33	30
6	65	52	43	37	61	50	42	36	45	38	33	41	35	31	37	32	29	26
7	60	47	38	32	57	45	37	31	41	34	29	37	31	27	34	29	25	23
8	56	43	34	29	53	41	33	28	37	31	26	34	28	24	31	26	23	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	23	32	25	21	29	24	20	26	22	19	17

**AVERAGE LUMINANCE (cd/sqm):**

	0°	45°	90°
0°	8981	8981	8981
5°	8999	8815	8843
10°	8935	8658	8644
15°	8829	8469	8392
20°	8685	8236	8140
25°	8515	7987	7828
30°	8308	7712	7547
35°	8115	7461	7288
40°	7918	7195	7027
45°	7696	6968	6796
50°	7485	6722	6592
55°	7230	6489	6352
60°	6950	6223	6107
65°	6660	5946	5832
70°	6332	5566	5549
75°	5809	5201	5201
80°	5122	4760	4822
85°	4483	4460	4702



TEST NUMBER: P333254-840

CATALOG NUMBER: S125DIP-S1090D365U840-4F0-1E-UDD-D1

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	131.5	2.4
10°-20°	373.3	6.7
20°-30°	555.1	9.9
30°-40°	657.5	11.8
40°-50°	679.8	12.2
50°-60°	626.3	11.2
60°-70°	506.2	9.1
70°-80°	339.0	6.1
80°-90°	176.8	3.2
90°-100°	129.4	2.3
100°-110°	163.5	2.9
110°-120°	202.4	3.6
120°-130°	229.9	4.1
130°-140°	238.7	4.3
140°-150°	224.5	4.0
150°-160°	186.5	3.3
160°-170°	124.0	2.2
170°-180°	43.4	0.8
0°-30°	1059.9	19.0
0°-40°	1717.4	30.7
0°-60°	3023.5	54.1
0°-90°	4045.6	72.4
90°-120°	495.2	8.9
90°-150°	1188.3	21.3
90°-180°	1542.0	27.6
0°-180°	5587.8	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1391	1391	1391	1391	1391	
5°	1391	1387	1378	1389	1388	132
15°	1328	1329	1320	1327	1322	374
25°	1206	1210	1202	1207	1201	555
35°	1044	1053	1050	1054	1054	653
45°	860	875	882	891	893	664
55°	661	683	705	719	725	591
65°	455	487	519	539	545	452
75°	251	287	330	356	364	266
85°	75	120	168	197	208	80
90°	22	69	118	149	161	16
95°	41	78	127	158	170	39
105°	94	118	160	189	200	100
115°	162	174	209	232	241	160
125°	230	232	258	279	286	206
135°	295	296	305	322	328	227
145°	355	355	356	363	367	222
155°	405	405	405	406	405	186
165°	440	439	440	441	439	124
175°	458	456	456	458	456	43
180°	459	459	459	459	459	



TEST NUMBER: P333254-840

CATALOG NUMBER: S125DIP-S1090D365U840-4F0-1E-UDD-D1

**CANDELA DISTRIBUTION (FULL):**

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	1390.6	1390.6	1390.6	1390.6	1390.6	1390.6	1390.6	1390.6	1390.6	1390.6	1390.6
2.5°	1393.8	1393.3	1392.8	1392.4	1391.9	1390.8	1389.1	1387.4	1385.7	1384.0	1385.7
5°	1390.6	1390.0	1389.4	1388.8	1388.2	1386.7	1384.6	1382.5	1380.4	1378.3	1380.7
7.5°	1378.3	1378.1	1377.8	1377.6	1377.4	1376.1	1373.9	1371.7	1369.6	1367.4	1369.5
10°	1367.4	1367.4	1367.4	1367.4	1367.4	1366.1	1363.7	1361.3	1358.9	1356.5	1358.6
12.5°	1352.1	1352.3	1352.6	1352.8	1353.1	1352.2	1350.3	1348.4	1346.5	1344.4	1346.2
15°	1327.9	1328.2	1328.5	1328.8	1329.1	1328.2	1326.1	1323.9	1321.8	1319.7	1321.5
17.5°	1296.2	1296.8	1297.4	1298.0	1298.6	1297.9	1295.8	1293.6	1291.5	1289.4	1290.8
20°	1273.3	1273.9	1274.6	1275.2	1275.8	1275.0	1272.8	1270.7	1268.6	1266.5	1267.4
22.5°	1247.1	1248.2	1249.3	1250.4	1251.5	1250.8	1248.5	1246.2	1243.7	1241.4	1242.5
25°	1206.5	1207.4	1208.3	1209.2	1210.1	1209.7	1207.9	1206.1	1204.3	1202.4	1203.7
27.5°	1161.2	1162.6	1163.9	1165.3	1166.6	1166.2	1164.2	1162.1	1160.0	1158.0	1158.8
30°	1127.4	1129.2	1131.0	1132.9	1134.7	1134.7	1132.9	1131.0	1129.2	1127.4	1128.0
32.5°	1096.9	1098.4	1100.0	1101.7	1103.2	1103.3	1102.0	1100.7	1099.3	1098.0	1098.6
35°	1044.3	1046.4	1048.5	1050.7	1052.8	1053.4	1052.5	1051.6	1050.7	1049.8	1050.7
37.5°	991.7	993.6	995.5	997.4	999.4	1000.3	1000.0	999.7	999.4	999.1	1000.3
40°	955.6	958.1	960.5	962.9	965.3	966.4	966.1	965.8	965.5	965.2	966.4
42.5°	916.4	919.6	922.7	925.8	929.0	930.9	931.6	932.2	932.9	933.6	935.0
45°	860.2	863.5	866.9	870.2	873.5	876.0	877.5	879.0	880.5	882.0	884.1
47.5°	802.7	805.8	808.9	811.9	815.1	817.9	820.5	823.1	825.8	828.3	831.4
50°	763.5	766.8	770.1	773.5	776.8	780.1	783.5	786.8	790.1	793.5	796.8
52.5°	722.0	726.1	730.1	734.2	738.2	742.3	746.4	750.4	754.5	758.5	762.1
55°	661.2	666.0	670.9	675.7	680.5	685.4	690.2	695.1	699.9	704.8	708.1
57.5°	599.1	604.8	610.7	616.5	622.3	628.0	633.6	639.1	644.7	650.3	654.1
60°	557.5	563.6	569.7	575.7	581.8	587.8	593.9	600.0	606.0	612.1	616.6
62.5°	517.3	523.3	529.4	535.4	541.5	547.8	554.3	560.9	567.4	573.9	579.0
65°	455.3	462.3	469.3	476.3	483.2	490.3	497.6	504.8	512.1	519.4	523.9
67.5°	397.0	403.7	410.4	417.2	423.8	430.9	438.4	445.8	453.1	460.5	466.1
70°	354.5	361.4	368.4	375.4	382.3	389.7	397.6	405.5	413.3	421.2	427.0
72.5°	313.1	320.2	327.4	334.7	341.8	349.7	358.4	367.0	375.6	384.2	390.4
75°	250.9	258.7	266.6	274.5	282.4	291.1	300.8	310.5	320.2	329.9	336.0
77.5°	191.2	200.3	209.3	218.4	227.5	236.7	246.0	255.4	264.7	274.0	280.6
80°	154.0	163.1	172.2	181.3	190.4	200.1	210.4	220.7	231.0	241.3	247.9
82.5°	120.3	129.8	139.4	149.0	158.5	168.5	179.2	189.7	200.3	210.8	217.2
85°	74.9	84.9	94.9	104.9	114.9	125.2	135.8	146.4	157.0	167.6	174.3
87.5°	42.6	52.4	62.2	72.1	81.9	92.0	102.4	112.8	123.2	133.6	140.7
90°	22.2	32.5	42.8	53.1	63.5	74.1	84.9	95.8	106.6	117.5	124.8
92.5°	28.3	37.7	47.1	56.6	65.9	76.2	87.5	98.7	109.9	121.1	128.4
95°	40.9	49.0	57.0	65.0	73.1	82.6	93.7	104.8	115.9	127.0	134.2
97.5°	54.6	61.8	69.0	76.0	83.2	92.3	103.4	114.4	125.4	136.4	143.3
100°	64.9	71.3	77.7	84.0	90.4	99.0	109.7	120.4	131.2	141.9	149.0
102.5°	76.1	82.3	88.6	94.7	100.9	109.1	119.0	129.0	139.0	149.0	155.8
105°	93.6	98.9	104.1	109.4	114.6	122.0	131.6	141.2	150.7	160.3	166.8
107.5°	113.1	117.6	122.2	126.7	131.2	138.0	147.1	156.2	165.3	174.4	180.6
110°	126.6	130.7	134.7	138.8	142.7	149.2	157.8	166.5	175.3	184.0	190.0



TEST NUMBER: P333254-840

CATALOG NUMBER: S125DIP-S1090D365U840-4F0-1E-UDD-D1

**CANDELA DISTRIBUTION (continued):**

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	141.5	144.6	147.7	150.8	153.9	159.8	168.2	176.8	185.4	193.9	199.5
115°	162.0	164.4	166.9	169.4	171.8	177.0	185.0	193.1	201.1	209.1	214.5
117.5°	182.7	184.2	185.7	187.2	188.7	193.4	201.0	208.5	216.1	223.7	228.9
120°	196.3	197.6	198.9	200.3	201.6	205.7	212.8	219.8	226.9	233.9	239.0
122.5°	210.2	210.7	211.3	211.8	212.4	216.1	223.1	229.9	236.9	243.9	248.7
125°	229.9	230.1	230.4	230.5	230.7	233.8	239.9	246.1	252.3	258.3	263.1
127.5°	250.0	249.9	249.9	249.9	249.8	252.4	257.4	262.6	267.6	272.7	277.0
130°	262.9	263.0	263.1	263.2	263.3	265.5	269.8	274.3	278.7	283.1	287.2
132.5°	274.6	275.2	275.8	276.4	277.0	278.9	282.2	285.4	288.6	291.9	296.0
135°	294.7	294.9	295.1	295.2	295.4	296.6	298.8	300.9	303.2	305.4	309.3
137.5°	313.6	313.8	314.0	314.2	314.5	315.2	316.3	317.5	318.7	319.9	323.7
140°	324.8	325.2	325.6	325.9	326.3	326.8	327.3	327.9	328.4	328.9	332.4
142.5°	337.0	337.1	337.2	337.3	337.4	337.6	338.0	338.3	338.7	339.0	342.0
145°	355.1	355.1	355.1	355.2	355.2	355.3	355.5	355.8	356.0	356.2	357.7
147.5°	370.4	370.6	370.7	370.9	371.1	371.3	371.5	371.7	371.8	372.0	372.7
150°	381.5	381.5	381.4	381.3	381.2	381.3	381.6	382.0	382.3	382.6	382.6
152.5°	390.7	390.8	390.9	391.0	391.1	391.2	391.4	391.5	391.6	391.7	391.9
155°	404.8	404.8	404.8	404.8	404.8	404.8	404.9	405.0	405.1	405.2	405.5
157.5°	417.3	417.2	417.0	416.8	416.7	416.6	416.7	416.8	416.8	416.9	417.2
160°	424.7	424.5	424.2	424.0	423.8	423.7	423.8	423.8	423.9	424.0	424.3
162.5°	431.3	431.1	431.0	430.8	430.6	430.5	430.5	430.6	430.6	430.6	431.0
165°	440.1	439.9	439.8	439.6	439.5	439.4	439.5	439.6	439.7	439.7	440.1
167.5°	447.5	447.2	446.9	446.6	446.3	446.1	446.1	446.1	446.1	446.1	446.6
170°	451.5	451.2	450.9	450.6	450.2	450.1	450.1	450.1	450.1	450.1	450.6
172.5°	454.3	454.0	453.7	453.4	453.1	452.9	452.9	452.9	452.9	452.9	453.4
175°	457.6	457.3	457.0	456.7	456.4	456.2	456.2	456.2	456.2	456.2	456.7
177.5°	459.2	459.0	458.7	458.5	458.2	458.1	458.0	458.0	457.9	457.8	458.2
180°	458.7	458.7	458.7	458.7	458.7	458.7	458.7	458.7	458.7	458.7	458.7



TEST NUMBER: P333254-840

CATALOG NUMBER: S125DIP-S1090D365U840-4F0-1E-UDD-D1

**CANDELA DISTRIBUTION (continued):**

	55°	60°	65°	70°	75°	80°	85°	90°
0°	1390.6	1390.6	1390.6	1390.6	1390.6	1390.6	1390.6	1390.6
2.5°	1387.4	1389.1	1390.8	1391.5	1391.3	1391.0	1390.8	1390.6
5°	1383.1	1385.5	1388.0	1389.1	1388.8	1388.5	1388.2	1387.9
7.5°	1371.6	1373.7	1375.8	1376.7	1376.4	1376.1	1375.8	1375.5
10°	1360.7	1362.8	1364.9	1365.8	1365.5	1365.2	1364.9	1364.6
12.5°	1347.8	1349.4	1351.0	1351.4	1350.7	1349.9	1349.1	1348.3
15°	1323.3	1325.1	1327.0	1327.3	1326.1	1324.8	1323.6	1322.4
17.5°	1292.2	1293.5	1294.9	1295.3	1294.5	1293.8	1293.1	1292.4
20°	1268.3	1269.2	1270.1	1270.6	1270.6	1270.6	1270.6	1270.6
22.5°	1243.7	1244.9	1246.0	1246.2	1245.5	1244.8	1244.1	1243.3
25°	1204.9	1206.1	1207.3	1207.1	1205.6	1204.1	1202.5	1201.0
27.5°	1159.6	1160.5	1161.3	1161.5	1160.9	1160.4	1159.8	1159.3
30°	1128.6	1129.2	1129.8	1130.0	1129.7	1129.4	1129.1	1128.8
32.5°	1099.2	1099.8	1100.4	1100.6	1100.2	1099.9	1099.6	1099.3
35°	1051.6	1052.5	1053.4	1053.8	1053.8	1053.8	1053.8	1053.8
37.5°	1001.5	1002.7	1003.9	1004.4	1004.3	1004.2	1004.0	1003.9
40°	967.7	968.9	970.1	971.0	971.6	972.2	972.8	973.4
42.5°	936.4	938.0	939.4	940.2	940.3	940.4	940.6	940.7
45°	886.3	888.4	890.5	891.7	892.0	892.3	892.6	892.9
47.5°	834.6	837.6	840.7	842.5	843.2	843.9	844.6	845.3
50°	800.1	803.4	806.8	808.9	809.8	810.7	811.6	812.5
52.5°	765.7	769.2	772.8	775.0	775.6	776.3	777.0	777.6
55°	711.4	714.8	718.1	720.4	721.6	722.9	724.1	725.3
57.5°	657.9	661.8	665.6	667.9	668.8	669.7	670.7	671.6
60°	621.2	625.7	630.3	633.0	633.9	634.8	635.7	636.6
62.5°	584.0	589.1	594.1	597.1	598.3	599.5	600.6	601.8
65°	528.5	533.0	537.6	540.5	541.7	542.9	544.1	545.3
67.5°	471.5	477.1	482.6	486.1	487.7	489.3	490.8	492.4
70°	432.7	438.5	444.2	448.1	449.9	451.7	453.5	455.3
72.5°	396.7	402.9	409.1	412.9	414.2	415.6	416.9	418.3
75°	342.0	348.1	354.2	357.9	359.4	360.9	362.4	364.0
77.5°	287.3	294.0	300.6	304.6	305.8	307.0	308.2	309.4
80°	254.6	261.3	267.9	271.9	273.1	274.3	275.5	276.7
82.5°	223.6	230.0	236.4	240.8	243.0	245.1	247.3	249.4
85°	181.0	187.6	194.3	198.8	201.3	203.7	206.1	208.5
87.5°	147.7	154.8	161.9	166.4	168.6	170.8	173.0	175.1
90°	132.2	139.6	146.9	151.8	154.2	156.5	158.9	161.3
92.5°	135.6	142.9	150.2	154.9	157.2	159.5	161.8	164.1
95°	141.5	148.7	155.9	160.7	162.9	165.2	167.4	169.8
97.5°	150.3	157.1	164.0	168.5	170.7	172.8	175.0	177.1
100°	156.0	163.1	170.2	174.7	176.6	178.6	180.7	182.6
102.5°	162.7	169.7	176.5	181.0	183.0	185.0	187.1	189.1
105°	173.4	179.9	186.4	190.9	193.2	195.6	197.9	200.4
107.5°	186.8	193.1	199.3	203.4	205.2	207.1	208.9	210.9
110°	196.0	202.0	207.9	212.0	214.0	216.1	218.1	220.2





TEST NUMBER: P333254-840

CATALOG NUMBER: S125DIP-S1090D365U840-4F0-1E-UDD-D1

**CANDELA DISTRIBUTION (continued):**

	55°	60°	65°	70°	75°	80°	85°	90°
112.5°	205.2	210.8	216.4	220.3	222.2	224.2	226.1	228.1
115°	219.8	225.3	230.7	234.2	235.9	237.7	239.4	241.2
117.5°	234.2	239.3	244.6	248.0	249.8	251.6	253.3	255.0
120°	244.2	249.3	254.5	257.8	259.3	260.8	262.4	263.9
122.5°	253.6	258.4	263.3	266.4	268.0	269.5	271.1	272.7
125°	267.7	272.5	277.1	280.1	281.7	283.1	284.5	285.9
127.5°	281.4	285.9	290.2	293.3	294.9	296.5	298.1	299.6
130°	291.4	295.6	299.7	302.5	303.9	305.2	306.6	307.9
132.5°	300.1	304.4	308.5	311.1	312.1	313.3	314.3	315.3
135°	313.3	317.2	321.1	323.7	324.9	326.1	327.3	328.5
137.5°	327.3	330.9	334.7	336.9	337.7	338.5	339.3	340.1
140°	336.0	339.4	343.0	345.1	345.9	346.7	347.5	348.3
142.5°	345.0	347.9	350.8	352.7	353.6	354.4	355.2	356.0
145°	359.2	360.7	362.2	363.6	364.5	365.5	366.5	367.4
147.5°	373.4	374.1	374.8	375.1	375.1	375.2	375.2	375.2
150°	382.6	382.6	382.6	382.7	382.8	382.9	383.1	383.2
152.5°	392.1	392.3	392.5	392.5	392.3	392.0	391.8	391.6
155°	405.8	406.1	406.4	406.4	406.0	405.6	405.2	404.8
157.5°	417.5	417.9	418.2	418.1	417.6	417.0	416.5	416.0
160°	424.6	425.0	425.3	425.3	424.9	424.4	424.0	423.6
162.5°	431.3	431.7	432.1	432.1	431.6	431.1	430.7	430.2
165°	440.4	440.7	441.0	440.9	440.4	440.0	439.5	439.0
167.5°	447.1	447.5	448.0	448.0	447.5	447.0	446.5	446.1
170°	451.0	451.5	452.0	451.9	451.4	450.8	450.3	449.7
172.5°	453.9	454.3	454.8	454.8	454.3	453.8	453.3	452.8
175°	457.1	457.6	458.1	458.0	457.5	456.9	456.4	455.8
177.5°	458.6	459.0	459.3	459.3	458.9	458.4	458.0	457.5
180°	458.7	458.7	458.7	458.7	458.7	458.7	458.7	458.7

(END OF REPORT)