

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: P332587-830

Luminaire Tested: **SA4XXDIP-C795D365U830-4F0-1E-UDD-F1**

Issue Date: 10/7/2019

**Test Information**

Test Method: LM-79-08  
Report Number: P332587-830  
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1807-864-10,  
Test Lab: INNOVATION CENTER  
Issue Date: 10/7/2019  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: NEO-RAY  
Catalog Number: SA4XXDIP-C795D365U830-4F0-1E-UDD-F1  
Description: DEFINE 4 DIRECT-INDIRECT PENDANT LED LUMINAIRE  
DOWNLIGHT 795 LUMENS PER FOOT, FLUSH SATIN WHITE DIFFUSER  
UPLIGHT 365 LUMENS PER FOOT, FLUSH SATIN WHITE DIFFUSER  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

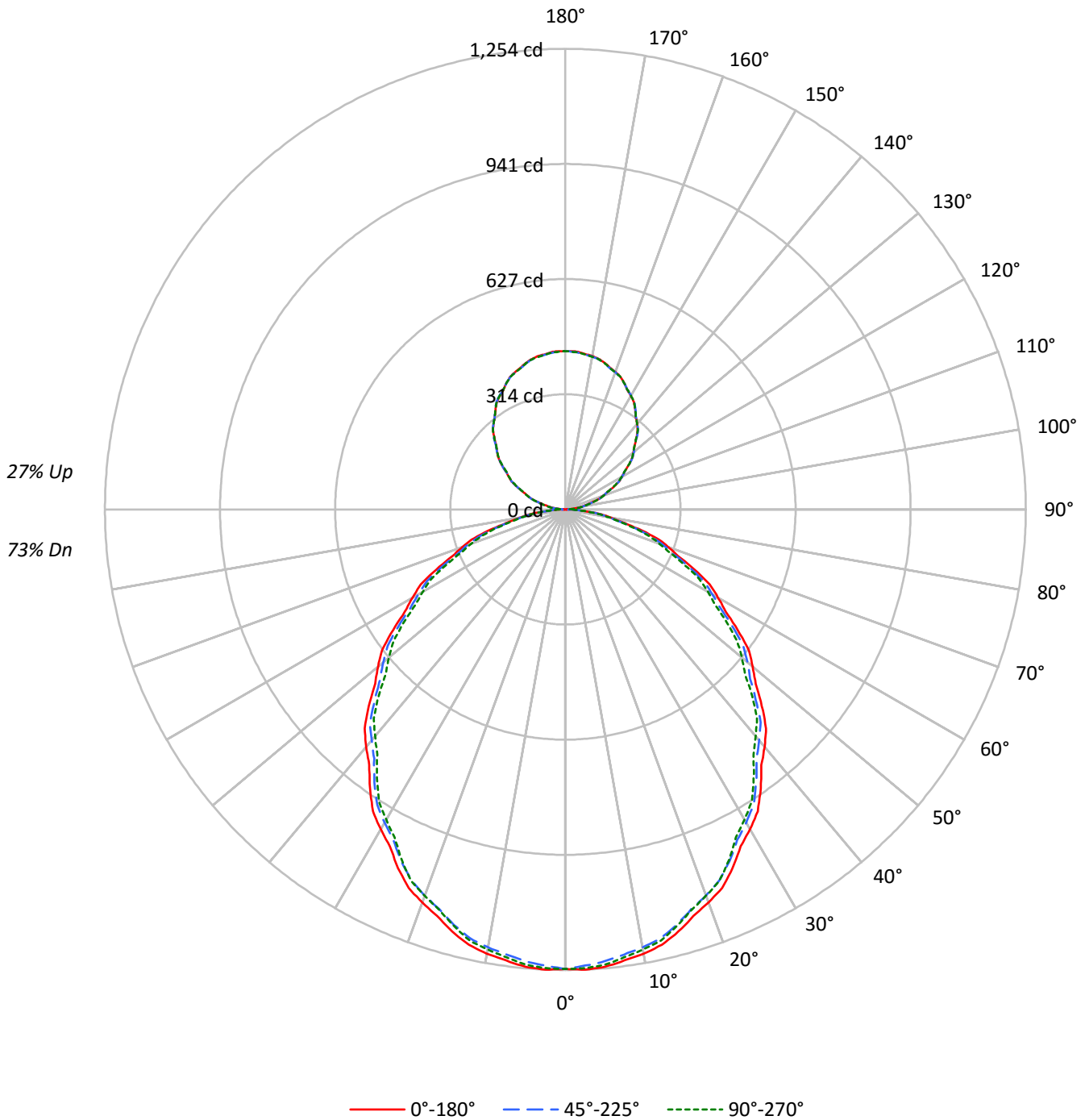
Lumens per Lamp: N/A  
Luminaire Lumens: 4406.8 lumens  
Efficiency: N/A  
Efficacy: 125.9 lumens/watt  
Spacing Criteria (0/90/45): 1.2 / 1.17 / 1.3  
Luminous Opening: Rectangular (W 0.33' x L: 4' x H: 0')  
CIE Type: Semi-Direct

Input Watts (W): 35  
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



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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	50	30	10	0	
RCR																						
0	113	113	113	113	107	107	107	107	96	96	96	86	86	86	77	77	77	77	77	77	73	
1	103	98	94	91	97	93	90	87	84	82	79	76	74	72	68	67	65	65	65	65	61	
2	94	86	79	74	89	82	76	71	74	69	65	67	63	60	60	57	55	55	55	55	51	
3	85	76	68	62	81	72	65	60	65	60	55	59	55	51	53	50	47	47	47	47	43	
4	78	67	59	52	74	64	56	51	58	52	47	53	48	44	48	44	40	40	40	40	37	
5	72	60	51	45	68	57	49	44	52	46	41	47	42	38	43	39	35	35	35	35	32	
6	66	54	45	39	63	51	44	38	47	41	36	43	37	33	39	34	31	31	31	31	28	
7	62	49	40	35	58	47	39	34	43	36	32	39	34	30	36	31	28	28	28	28	25	
8	57	44	36	31	54	43	35	30	39	33	28	36	30	26	33	28	25	25	25	25	23	
9	53	41	33	28	51	39	32	27	36	30	25	33	28	24	30	26	22	22	22	22	20	
10	50	37	30	25	47	36	29	24	33	27	23	31	25	22	28	24	20	20	20	20	18	

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

	0°	45°	90°
0°	10101	10101	10101
5°	10131	10009	10083
10°	10067	9928	9977
15°	9947	9787	9812
20°	9784	9613	9620
25°	9600	9413	9386
30°	9374	9177	9093
35°	9140	8932	8814
40°	8896	8652	8495
45°	8643	8379	8218
50°	8361	8133	7882
55°	8058	7817	7562
60°	7753	7463	7237
65°	7412	7125	6837
70°	7027	6675	6413
75°	6441	6129	5973
80°	5732	5500	5360
85°	5011	4826	4733



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	117.8	2.7
10°-20°	332.0	7.5
20°-30°	488.6	11.1
30°-40°	568.1	12.9
40°-50°	568.1	12.9
50°-60°	496.9	11.3
60°-70°	369.0	8.4
70°-80°	209.7	4.8
80°-90°	61.8	1.4
90°-100°	28.4	0.6
100°-110°	84.2	1.9
110°-120°	142.8	3.2
120°-130°	188.3	4.3
130°-140°	211.5	4.8
140°-150°	207.8	4.7
150°-160°	174.8	4.0
160°-170°	116.3	2.6
170°-180°	40.7	0.9
0°-30°	938.5	21.3
0°-40°	1506.5	34.2
0°-60°	2571.5	58.4
0°-90°	3212.0	72.9
90°-120°	255.4	5.8
90°-150°	863.0	19.6
90°-180°	1195.0	27.1
0°-180°	4406.8	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1251	1251	1251	1251	1251	
5°	1250	1246	1235	1245	1244	119
15°	1190	1185	1171	1176	1174	335
25°	1078	1070	1057	1057	1054	496
35°	927	920	906	899	894	580
45°	757	749	734	723	720	583
55°	572	569	555	544	537	513
65°	388	383	373	363	358	384
75°	206	202	196	193	192	219
85°	54	54	52	52	51	60
90°	1	5	7	9	10	4
95°	20	23	25	26	26	22
105°	78	78	79	80	81	82
115°	145	145	145	144	144	143
125°	212	211	211	210	210	188
135°	273	275	275	274	273	211
145°	331	333	333	333	332	207
155°	380	380	379	380	379	175
165°	413	412	412	413	412	116
175°	430	428	428	430	428	41
180°	431	431	431	431	431	



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**CANDELA DISTRIBUTION (FULL):**

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	1251.2	1251.2	1251.2	1251.2	1251.2	1251.2	1251.2	1251.2	1251.2	1251.2	1251.2
2.5°	1254.4	1253.9	1253.3	1252.8	1252.3	1251.0	1249.1	1247.1	1245.1	1243.2	1244.9
5°	1250.2	1249.3	1248.4	1247.5	1246.6	1244.9	1242.5	1240.0	1237.6	1235.1	1237.6
7.5°	1238.6	1237.7	1236.8	1235.9	1235.0	1233.2	1230.5	1227.8	1225.0	1222.3	1224.3
10°	1228.1	1227.3	1226.3	1225.5	1224.6	1222.7	1219.7	1216.9	1214.0	1211.1	1212.9
12.5°	1214.5	1213.6	1212.7	1211.8	1211.0	1208.9	1205.9	1202.8	1199.8	1196.7	1198.6
15°	1190.1	1189.1	1188.3	1187.3	1186.5	1184.4	1181.0	1177.7	1174.3	1171.0	1172.3
17.5°	1160.6	1159.4	1158.3	1157.3	1156.1	1154.0	1150.8	1147.6	1144.4	1141.3	1142.2
20°	1138.9	1137.7	1136.7	1135.6	1134.4	1132.2	1128.9	1125.5	1122.2	1118.9	1119.6
22.5°	1115.7	1114.2	1112.7	1111.3	1109.7	1107.4	1104.0	1100.7	1097.3	1094.0	1095.2
25°	1077.7	1076.2	1074.6	1073.1	1071.5	1069.1	1066.0	1062.9	1059.8	1056.7	1056.9
27.5°	1034.4	1032.8	1031.2	1029.6	1028.0	1025.8	1022.8	1020.0	1017.1	1014.2	1013.6
30°	1005.6	1003.8	1002.0	1000.2	998.4	996.1	993.2	990.3	987.4	984.5	983.6
32.5°	975.1	973.5	971.9	970.3	968.7	966.3	963.3	960.2	957.2	954.0	953.0
35°	927.4	925.8	924.3	922.7	921.1	918.8	915.7	912.6	909.5	906.3	904.7
37.5°	877.0	875.6	874.2	872.8	871.3	868.9	865.6	862.2	858.9	855.5	853.8
40°	844.1	842.4	840.6	838.8	837.0	834.4	831.1	827.7	824.4	821.0	818.9
42.5°	808.9	807.8	806.7	805.7	804.6	802.2	798.5	794.8	791.1	787.4	784.9
45°	757.0	755.4	753.8	752.2	750.7	748.1	744.6	741.0	737.4	733.9	731.4
47.5°	702.6	701.5	700.5	699.4	698.3	696.2	692.9	689.6	686.3	683.0	680.1
50°	665.7	664.8	663.9	663.0	662.1	660.2	657.0	653.9	650.7	647.6	644.5
52.5°	629.6	628.6	627.5	626.4	625.3	623.1	619.8	616.5	613.2	609.9	607.2
55°	572.5	571.7	571.1	570.4	569.8	567.9	564.8	561.7	558.6	555.4	552.7
57.5°	517.9	517.2	516.4	515.7	514.9	512.9	509.9	506.8	503.8	500.7	498.1
60°	480.2	479.1	478.0	476.9	475.8	473.7	470.9	468.0	465.1	462.2	460.1
62.5°	443.4	442.4	441.5	440.5	439.6	437.6	434.5	431.4	428.4	425.3	423.5
65°	388.0	386.9	385.8	384.7	383.5	381.8	379.7	377.4	375.1	373.0	370.7
67.5°	332.2	331.2	330.2	329.1	328.2	326.6	324.4	322.3	320.2	318.0	315.8
70°	297.7	296.2	294.6	293.0	291.5	289.8	288.0	286.3	284.5	282.8	281.0
72.5°	260.9	259.3	257.8	256.2	254.6	253.2	251.8	250.2	248.8	247.4	246.0
75°	206.5	205.4	204.3	203.2	202.1	201.0	199.8	198.7	197.7	196.5	195.6
77.5°	154.6	154.1	153.6	153.2	152.6	151.9	150.9	150.0	148.9	148.0	147.7
80°	123.3	122.6	122.0	121.3	120.6	120.1	119.6	119.2	118.8	118.3	117.8
82.5°	92.8	92.6	92.2	91.9	91.6	91.4	91.3	91.2	91.1	91.0	90.8
85°	54.1	54.1	54.1	54.1	54.1	53.9	53.4	53.1	52.6	52.1	52.1
87.5°	21.0	21.0	21.0	21.0	21.0	20.9	20.9	20.8	20.7	20.7	20.8
90°	1.0	1.8	2.6	3.5	4.2	5.0	5.6	6.1	6.7	7.4	7.7
92.5°	7.2	8.1	9.0	9.9	10.8	11.5	12.0	12.3	12.8	13.2	13.5
95°	20.0	20.6	21.3	22.0	22.6	23.3	23.8	24.3	24.8	25.4	25.5
97.5°	34.9	35.4	36.0	36.5	37.0	37.6	38.2	38.8	39.4	40.1	40.3
100°	46.7	46.9	47.2	47.5	47.8	48.3	48.9	49.7	50.3	51.0	51.1
102.5°	58.9	59.0	59.1	59.3	59.4	59.8	60.3	61.0	61.5	62.1	62.4
105°	77.6	77.7	77.8	77.9	77.9	78.0	78.4	78.7	79.0	79.3	79.5
107.5°	97.3	97.4	97.5	97.6	97.6	97.6	97.7	97.7	97.8	97.8	98.0
110°	110.6	110.7	110.8	111.0	111.1	111.2	111.1	111.0	110.9	110.9	110.7



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**CANDELA DISTRIBUTION (continued):**

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	124.4	124.4	124.5	124.5	124.5	124.5	124.3	124.2	124.1	123.9	123.9
115°	145.2	145.2	145.2	145.2	145.2	145.2	145.0	144.9	144.7	144.6	144.5
117.5°	164.8	164.9	164.9	164.9	165.0	165.0	164.9	164.9	164.7	164.6	164.4
120°	177.9	178.1	178.4	178.7	179.1	179.1	178.9	178.6	178.4	178.2	177.9
122.5°	191.4	191.5	191.7	191.8	191.9	191.9	191.8	191.7	191.6	191.5	191.2
125°	211.5	211.5	211.5	211.5	211.5	211.4	211.4	211.3	211.2	211.1	211.0
127.5°	229.7	229.9	230.2	230.4	230.5	230.6	230.5	230.4	230.3	230.2	230.0
130°	242.5	242.7	242.9	243.2	243.4	243.5	243.5	243.5	243.5	243.5	243.4
132.5°	255.5	255.7	255.8	256.0	256.2	256.2	256.2	256.1	256.1	256.0	255.8
135°	272.8	273.2	273.6	274.1	274.6	274.8	274.8	274.8	274.8	274.8	274.7
137.5°	291.5	291.8	292.0	292.2	292.4	292.6	292.7	292.8	292.9	293.0	292.8
140°	304.1	304.3	304.3	304.5	304.7	304.7	304.7	304.7	304.7	304.7	304.7
142.5°	315.6	315.7	315.8	315.9	316.1	316.2	316.1	316.0	316.0	315.9	315.9
145°	331.4	331.7	332.0	332.2	332.6	332.8	332.8	332.9	333.0	333.1	333.0
147.5°	347.1	347.5	347.8	348.2	348.6	348.6	348.6	348.6	348.6	348.5	348.4
150°	356.8	357.0	357.3	357.6	357.9	358.1	358.1	358.1	358.1	358.1	358.1
152.5°	365.8	366.0	366.1	366.3	366.5	366.6	366.6	366.7	366.7	366.8	367.0
155°	379.7	379.7	379.7	379.7	379.7	379.7	379.6	379.5	379.5	379.4	379.7
157.5°	391.4	391.2	391.2	391.1	390.9	390.8	390.8	390.8	390.8	390.8	391.0
160°	398.3	398.2	398.2	398.1	398.0	397.9	397.9	397.8	397.8	397.7	397.9
162.5°	404.7	404.5	404.4	404.2	404.0	403.9	403.8	403.7	403.6	403.5	404.0
165°	413.3	413.1	412.9	412.6	412.5	412.3	412.1	412.0	411.8	411.7	412.1
167.5°	419.9	419.6	419.3	419.0	418.7	418.5	418.6	418.6	418.6	418.6	419.1
170°	423.7	423.3	422.9	422.5	422.2	422.1	422.1	422.2	422.3	422.4	422.7
172.5°	426.3	426.0	425.7	425.4	425.1	424.9	424.9	425.0	425.0	425.0	425.5
175°	430.0	429.6	429.2	428.9	428.5	428.3	428.2	428.1	428.1	428.0	428.5
177.5°	431.2	430.9	430.6	430.3	430.0	429.9	429.9	429.9	429.9	429.9	430.3
180°	430.6	430.6	430.6	430.6	430.6	430.6	430.6	430.6	430.6	430.6	430.6



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**CANDELA DISTRIBUTION (continued):**

	55°	60°	65°	70°	75°	80°	85°	90°
0°	1251.2	1251.2	1251.2	1251.2	1251.2	1251.2	1251.2	1251.2
2.5°	1246.7	1248.5	1250.3	1251.1	1250.9	1250.8	1250.6	1250.4
5°	1240.0	1242.5	1244.9	1245.9	1245.5	1245.1	1244.6	1244.2
7.5°	1226.2	1228.2	1230.1	1231.0	1230.8	1230.5	1230.2	1229.9
10°	1214.7	1216.4	1218.2	1218.9	1218.4	1218.0	1217.6	1217.1
12.5°	1200.6	1202.5	1204.5	1205.1	1204.6	1203.9	1203.2	1202.7
15°	1173.7	1175.0	1176.3	1176.7	1176.0	1175.4	1174.7	1174.0
17.5°	1143.0	1143.9	1144.7	1144.9	1144.4	1144.0	1143.6	1143.1
20°	1120.2	1120.9	1121.5	1121.6	1121.2	1120.8	1120.3	1119.8
22.5°	1096.4	1097.6	1098.8	1099.0	1098.2	1097.4	1096.6	1095.8
25°	1057.2	1057.3	1057.6	1057.2	1056.4	1055.5	1054.6	1053.7
27.5°	1013.1	1012.6	1012.0	1011.3	1010.1	1009.0	1007.9	1006.7
30°	982.7	981.8	980.9	980.0	978.8	977.7	976.6	975.5
32.5°	951.9	950.8	949.8	948.7	947.5	946.4	945.3	944.2
35°	903.2	901.6	900.0	898.7	897.6	896.5	895.4	894.3
37.5°	852.2	850.5	848.9	847.3	845.7	844.3	842.8	841.3
40°	816.6	814.5	812.2	810.5	809.4	808.3	807.2	806.1
42.5°	782.2	779.7	777.0	775.4	774.7	773.9	773.2	772.4
45°	729.0	726.5	724.1	722.6	721.8	721.1	720.5	719.8
47.5°	677.4	674.7	671.8	669.7	668.0	666.3	664.6	662.9
50°	641.4	638.3	635.2	632.9	631.6	630.3	629.0	627.6
52.5°	604.5	601.6	598.9	596.7	595.0	593.3	591.6	589.9
55°	550.1	547.4	544.7	542.7	541.4	540.1	538.7	537.3
57.5°	495.6	493.0	490.5	488.6	487.3	486.0	484.7	483.4
60°	458.2	456.2	454.1	452.6	451.5	450.3	449.2	448.2
62.5°	421.6	419.8	418.0	416.5	415.4	414.2	413.2	412.1
65°	368.5	366.3	364.0	362.4	361.3	360.1	359.0	357.9
67.5°	313.8	311.6	309.4	308.2	307.9	307.6	307.3	307.0
70°	279.2	277.4	275.6	274.4	273.7	273.1	272.4	271.7
72.5°	244.6	243.2	241.8	240.7	240.0	239.3	238.7	238.0
75°	194.7	193.8	192.9	192.4	192.2	191.9	191.7	191.5
77.5°	147.4	147.1	146.9	146.5	145.9	145.3	144.8	144.2
80°	117.4	117.0	116.5	116.2	115.9	115.7	115.6	115.3
82.5°	90.5	90.2	89.9	89.7	89.5	89.3	89.1	88.8
85°	52.1	52.1	52.1	52.0	51.8	51.6	51.4	51.1
87.5°	20.9	21.0	21.1	21.1	21.1	21.2	21.2	21.2
90°	8.2	8.7	9.1	9.4	9.5	9.7	9.8	10.0
92.5°	13.8	13.9	14.2	14.4	14.5	14.6	14.7	14.8
95°	25.7	26.0	26.2	26.3	26.3	26.3	26.3	26.3
97.5°	40.5	40.8	41.1	41.2	41.2	41.2	41.2	41.2
100°	51.3	51.4	51.6	51.7	51.7	51.7	51.7	51.7
102.5°	62.6	62.8	63.0	63.2	63.2	63.2	63.2	63.3
105°	79.7	79.9	80.1	80.4	80.6	80.9	81.1	81.2
107.5°	98.3	98.5	98.7	98.8	98.8	98.8	98.8	98.7
110°	110.7	110.5	110.3	110.4	110.6	110.8	111.0	111.2





TEST NUMBER: P332587-830

CATALOG NUMBER: SA4XXDIP-C795D365U830-4F0-1E-UDD-F1

**CANDELA DISTRIBUTION (continued):**

	55°	60°	65°	70°	75°	80°	85°	90°
112.5°	123.9	123.9	123.9	123.9	123.9	123.9	123.9	124.0
115°	144.4	144.3	144.2	144.2	144.1	144.0	143.9	143.9
117.5°	164.1	163.8	163.6	163.4	163.2	163.1	163.0	162.8
120°	177.5	177.1	176.7	176.6	176.7	176.9	177.0	177.2
122.5°	191.1	190.8	190.5	190.2	190.0	189.7	189.5	189.2
125°	210.8	210.8	210.6	210.4	210.3	210.1	210.0	209.8
127.5°	229.9	229.7	229.5	229.4	229.3	229.2	229.0	228.9
130°	243.2	243.0	242.9	242.6	242.3	242.0	241.8	241.5
132.5°	255.7	255.5	255.4	255.2	255.1	255.1	255.0	254.8
135°	274.5	274.4	274.2	274.0	273.8	273.5	273.3	273.1
137.5°	292.7	292.5	292.3	292.2	292.2	292.3	292.3	292.4
140°	304.6	304.5	304.4	304.3	304.3	304.3	304.2	304.1
142.5°	315.9	315.9	315.8	315.8	315.8	315.8	315.8	315.8
145°	332.9	332.8	332.8	332.6	332.4	332.2	332.0	331.8
147.5°	348.4	348.3	348.2	348.2	348.1	348.0	347.9	347.9
150°	358.1	358.1	358.1	358.0	358.0	357.9	357.8	357.7
152.5°	367.2	367.4	367.6	367.5	367.3	367.1	366.9	366.7
155°	379.9	380.2	380.5	380.5	380.2	379.9	379.7	379.4
157.5°	391.2	391.4	391.6	391.6	391.3	391.2	390.9	390.6
160°	398.1	398.3	398.6	398.5	398.1	397.8	397.4	397.0
162.5°	404.4	404.7	405.1	405.1	404.8	404.4	404.1	403.7
165°	412.6	413.0	413.4	413.5	413.2	412.9	412.6	412.4
167.5°	419.5	419.9	420.4	420.4	419.9	419.4	419.0	418.5
170°	423.2	423.7	424.1	424.0	423.6	423.0	422.5	422.0
172.5°	426.0	426.5	427.0	427.0	426.5	425.9	425.5	424.9
175°	429.0	429.5	430.1	430.1	429.5	429.0	428.5	428.0
177.5°	430.6	431.1	431.5	431.5	431.0	430.6	430.1	429.6
180°	430.6	430.6	430.6	430.6	430.6	430.6	430.6	430.6

(END OF REPORT)