

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: P332673-935

Luminaire Tested: **S124DIP-S1195D365U935-4F0-1E-UDD-D**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P332673-935
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1807-864-6,
Test Lab: INNOVATION CENTER
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: NEO-RAY
Catalog Number: S124DIP-S1195D365U935-4F0-1E-UDD-D
Description: DEFINE 4 DIRECT-INDIRECT PENDANT LED LUMINAIRE
DOWNLIGHT 1195 LUMENS PER FOOT, DROP SATIN WHITE DIFFUSER
UPLIGHT 365 LUMENS PER FOOT, NO LENS
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 5444.8 lumens
Efficiency: N/A
Efficacy: 109.3 lumens/watt
Spacing Criteria (0/90/45): 1.23 / 1.28 / 1.39
Luminous Opening: Rectangular w/ Sides (W: 0.33' x L: 4' x H: 0.08')
CIE Type: Semi-Direct

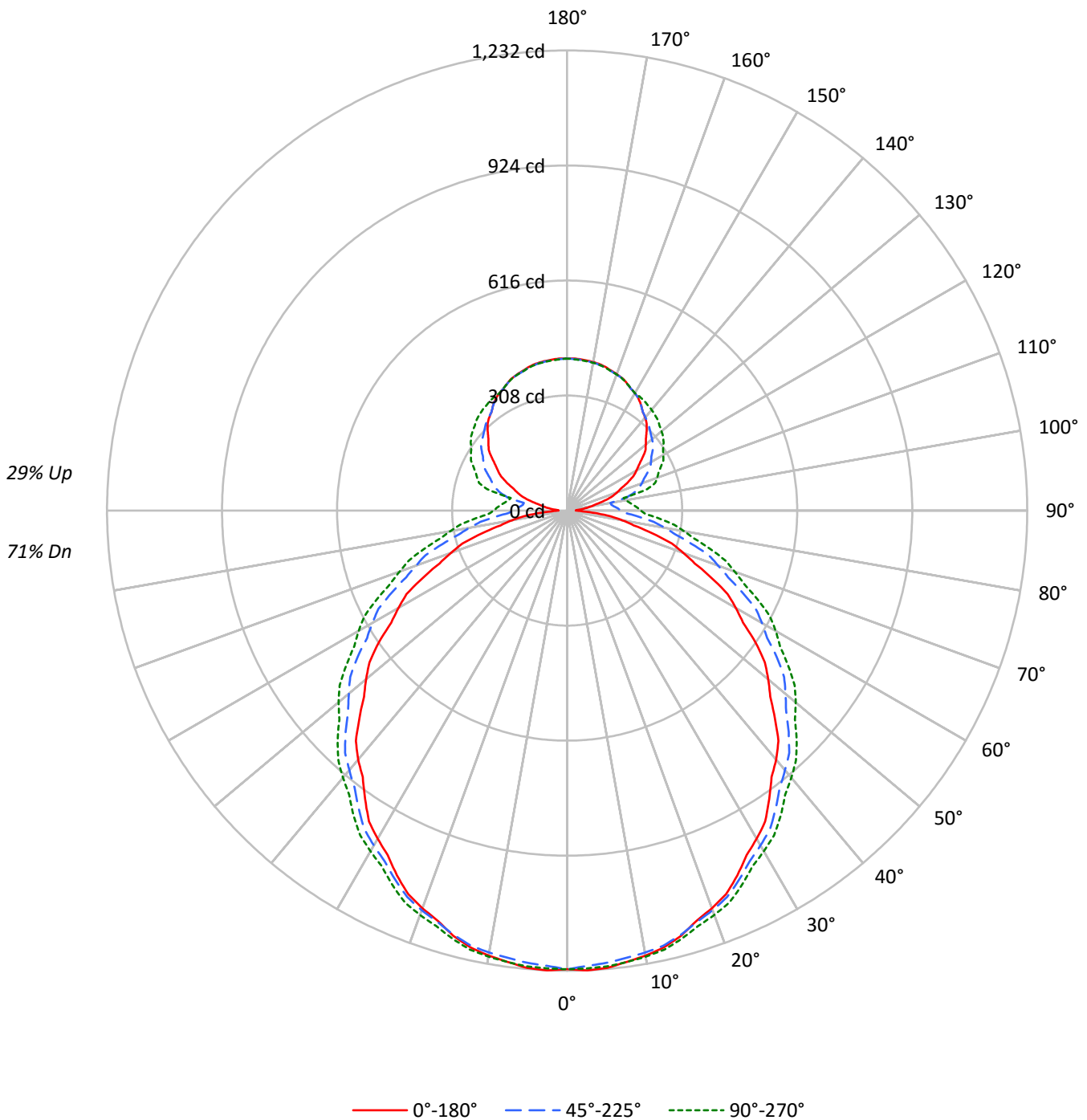
Input Watts (W): 49.8
Input Voltage (V): 120
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Luminous Intensity Polar Plot





TEST NUMBER: P332673-935

CATALOG NUMBER: S124DIP-S1195D365U935-4F0-1E-UDD-D

COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:

RF	20				20				20				20				20
RC	80				70				50				30				10
RW	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10
RCR																	
0	112	112	112	112	106	106	106	106	95	95	95	85	85	85	75	75	75
1	101	96	91	87	95	91	87	83	81	78	75	73	70	68	64	63	61
2	91	83	76	70	86	79	72	67	70	65	61	63	59	56	56	53	50
3	83	73	64	58	78	69	61	55	62	56	51	55	50	46	49	45	42
4	76	64	55	49	71	61	53	47	55	48	43	49	44	39	44	39	36
5	70	57	48	41	65	54	46	40	49	42	37	44	38	34	39	35	31
6	64	51	42	36	60	49	40	35	44	37	32	39	34	30	35	31	27
7	59	46	37	31	56	44	36	30	40	33	28	36	30	26	32	28	24
8	55	42	34	28	52	40	32	27	36	30	25	33	27	23	30	25	21
9	51	38	30	25	48	37	29	24	33	27	22	30	25	21	27	23	19
10	48	35	27	22	45	34	26	22	31	24	20	28	23	19	25	21	17

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	9912	9912	9912
5°	9942	9687	9715
10°	9882	9528	9521
15°	9793	9345	9294
20°	9660	9143	9072
25°	9509	8916	8829
30°	9346	8690	8579
35°	9161	8459	8360
40°	9014	8239	8132
45°	8795	8036	7936
50°	8610	7802	7728
55°	8420	7582	7486
60°	8121	7301	7265
65°	7793	6999	6992
70°	7397	6655	6676
75°	6845	6278	6390
80°	6233	5915	6107
85°	5446	5591	5943



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	116.3	2.1
10°-20°	333.1	6.1
20°-30°	503.7	9.3
30°-40°	609.4	11.2
40°-50°	644.3	11.8
50°-60°	606.4	11.1
60°-70°	503.1	9.2
70°-80°	353.4	6.5
80°-90°	200.9	3.7
90°-100°	132.5	2.4
100°-110°	176.5	3.2
110°-120°	228.7	4.2
120°-130°	248.7	4.6
130°-140°	244.9	4.5
140°-150°	218.5	4.0
150°-160°	173.8	3.2
160°-170°	112.1	2.1
170°-180°	38.6	0.7
0°-30°	953.1	17.5
0°-40°	1562.5	28.7
0°-60°	2813.1	51.7
0°-90°	3870.5	71.1
90°-120°	537.7	9.9
90°-150°	1249.7	23.0
90°-180°	1574.0	28.9
0°-180°	5444.8	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1228	1228	1228	1228	1228	
5°	1229	1225	1215	1226	1225	117
15°	1178	1179	1176	1187	1186	332
25°	1078	1086	1090	1105	1107	496
35°	943	959	973	992	997	590
45°	786	813	839	861	869	608
55°	616	646	686	712	722	549
65°	426	470	517	550	562	422
75°	236	288	345	382	396	252
85°	73	131	192	232	248	78
90°	23	81	143	183	196	15
95°	35	71	126	164	178	36
105°	104	135	186	221	223	110
115°	179	194	236	266	277	177
125°	246	248	280	306	315	220
135°	301	301	312	333	343	232
145°	345	345	345	353	359	216
155°	377	377	376	378	377	174
165°	398	396	396	398	396	112
175°	407	405	405	408	404	39
180°	407	407	407	407	407	



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CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	1227.8	1227.8	1227.8	1227.8	1227.8	1227.8	1227.8	1227.8	1227.8	1227.8	1227.8
2.5°	1232.2	1231.4	1230.7	1229.9	1229.2	1227.9	1225.9	1224.0	1222.0	1220.0	1221.8
5°	1229.1	1228.2	1227.3	1226.4	1225.5	1223.9	1221.8	1219.6	1217.5	1215.4	1217.8
7.5°	1218.7	1218.1	1217.5	1217.0	1216.5	1215.3	1213.6	1211.8	1210.0	1208.2	1211.0
10°	1209.9	1209.5	1209.3	1208.9	1208.7	1207.7	1206.2	1204.7	1203.2	1201.6	1204.4
12.5°	1197.7	1197.7	1197.7	1197.6	1197.6	1197.0	1195.9	1194.9	1193.9	1192.8	1195.3
15°	1178.3	1178.5	1178.9	1179.1	1179.5	1179.1	1178.3	1177.3	1176.4	1175.5	1178.3
17.5°	1151.6	1152.5	1153.4	1154.3	1155.2	1155.6	1155.5	1155.2	1155.0	1154.9	1157.7
20°	1132.9	1133.8	1134.7	1135.7	1136.5	1137.1	1137.5	1137.8	1138.1	1138.4	1141.4
22.5°	1112.0	1113.1	1114.3	1115.4	1116.6	1117.5	1118.0	1118.6	1119.1	1119.6	1122.7
25°	1077.9	1079.7	1081.6	1083.4	1085.2	1086.6	1087.5	1088.4	1089.3	1090.3	1093.6
27.5°	1039.9	1042.7	1045.3	1048.0	1050.7	1052.7	1054.1	1055.6	1057.0	1058.3	1061.4
30°	1014.6	1017.1	1019.5	1022.0	1024.4	1026.7	1028.8	1031.0	1033.1	1035.3	1038.6
32.5°	987.1	990.1	993.0	995.9	998.8	1001.5	1003.9	1006.3	1008.7	1011.1	1014.9
35°	943.1	946.8	950.5	954.2	957.8	961.1	964.2	967.2	970.3	973.4	977.7
37.5°	898.9	903.1	907.3	911.5	915.8	919.7	923.5	927.3	931.1	934.9	939.3
40°	870.3	874.3	878.2	882.2	886.1	890.3	894.6	898.9	903.1	907.4	912.0
42.5°	837.3	841.7	846.2	850.7	855.1	859.9	864.9	869.9	874.9	879.9	885.0
45°	786.4	792.2	798.1	803.8	809.6	815.5	821.2	827.1	832.8	838.7	843.9
47.5°	737.7	743.7	749.8	755.7	761.7	768.1	774.8	781.5	788.2	795.0	800.3
50°	702.6	709.3	716.0	722.7	729.4	736.2	742.9	749.6	756.3	763.0	769.1
52.5°	667.4	674.1	680.8	687.5	694.2	701.5	709.1	716.9	724.5	732.3	738.4
55°	616.0	622.3	628.8	635.2	641.6	649.4	658.6	667.7	676.9	686.0	692.2
57.5°	558.4	566.5	574.4	582.3	590.2	598.7	607.9	617.0	626.1	635.2	642.5
60°	521.1	529.0	536.9	544.9	552.8	561.9	572.0	582.0	592.1	602.2	609.2
62.5°	484.7	493.4	502.1	510.8	519.4	528.8	539.0	549.1	559.1	569.2	576.2
65°	426.2	436.0	445.7	455.6	465.3	475.4	485.8	496.2	506.5	516.9	524.6
67.5°	369.8	380.2	390.6	401.0	411.4	422.1	433.3	444.4	455.5	466.7	474.4
70°	331.3	341.7	352.1	362.5	372.9	383.9	395.5	407.1	418.7	430.3	438.6
72.5°	293.9	304.5	315.2	325.8	336.5	347.9	360.3	372.6	385.0	397.4	405.4
75°	236.5	247.8	259.1	270.4	281.7	293.8	306.6	319.4	332.3	345.1	353.6
77.5°	182.9	194.8	206.8	218.8	230.7	243.5	256.9	270.4	283.8	297.2	305.9
80°	149.9	162.0	174.3	186.5	198.7	211.5	225.0	238.5	251.9	265.4	274.5
82.5°	116.8	129.6	142.3	155.0	167.7	180.8	194.2	207.7	221.1	234.5	243.9
85°	72.8	85.7	98.5	111.3	124.2	137.5	151.2	165.0	178.7	192.5	201.6
87.5°	40.9	53.5	66.1	78.7	91.4	104.4	117.9	131.4	144.8	158.3	167.3
90°	22.9	35.9	48.8	61.8	74.7	88.1	101.8	115.5	129.2	142.8	152.1
92.5°	24.7	35.7	46.8	57.9	68.9	81.3	95.0	108.6	122.3	136.0	145.0
95°	34.6	42.4	50.2	57.9	65.8	75.9	88.5	101.1	113.7	126.3	134.9
97.5°	51.7	61.9	72.0	82.1	92.2	99.7	104.5	109.4	114.3	119.2	127.2
100°	65.0	74.2	83.3	92.5	101.7	107.5	110.1	112.7	115.3	117.9	125.0
102.5°	81.1	88.9	96.8	104.7	112.5	121.7	132.2	142.6	153.1	163.5	159.1
105°	103.9	110.5	117.0	123.6	130.0	139.1	150.8	162.4	174.0	185.7	193.9
107.5°	127.5	132.7	137.9	143.1	148.4	156.5	167.6	178.8	190.0	201.1	209.0
110°	142.4	147.0	151.4	155.9	160.4	168.2	179.3	190.4	201.5	212.6	219.7



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CANDELA DISTRIBUTION (continued):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	157.0	161.1	165.2	169.4	173.6	180.8	191.2	201.6	212.0	222.4	229.1
115°	179.3	182.2	185.2	188.1	191.1	197.4	207.1	216.8	226.5	236.3	243.1
117.5°	200.6	202.5	204.4	206.4	208.3	213.9	223.1	232.4	241.6	250.9	257.2
120°	214.1	215.2	216.5	217.7	218.9	223.9	232.6	241.4	250.2	259.0	265.3
122.5°	227.7	228.1	228.4	228.8	229.1	233.5	241.9	250.5	258.9	267.3	273.5
125°	245.9	245.8	245.8	245.8	245.7	249.5	257.0	264.5	272.0	279.5	285.5
127.5°	264.2	263.9	263.6	263.4	263.1	266.1	272.3	278.4	284.6	290.8	296.3
130°	274.9	274.7	274.5	274.2	274.0	276.4	281.5	286.6	291.7	296.8	302.4
132.5°	285.9	285.7	285.5	285.3	285.2	287.1	291.4	295.5	299.6	303.8	309.2
135°	300.9	300.9	300.8	300.7	300.7	301.9	304.3	306.7	309.1	311.5	316.5
137.5°	315.5	315.2	315.0	314.7	314.4	315.0	316.2	317.6	318.9	320.3	324.9
140°	325.0	324.9	324.7	324.5	324.3	324.4	324.9	325.3	325.8	326.2	330.4
142.5°	332.4	332.6	332.8	332.9	333.1	333.2	333.1	332.9	332.9	332.8	336.4
145°	345.3	345.1	345.0	344.9	344.8	344.7	344.7	344.7	344.7	344.7	346.6
147.5°	355.6	355.7	355.8	355.9	355.9	355.9	355.9	355.8	355.7	355.7	355.9
150°	363.2	363.2	363.1	363.1	363.0	363.0	362.9	362.8	362.7	362.7	362.7
152.5°	368.4	368.6	368.7	368.9	369.0	369.0	368.9	368.8	368.7	368.6	368.7
155°	377.0	377.1	377.1	377.2	377.3	377.2	377.0	376.8	376.6	376.4	376.7
157.5°	384.5	384.4	384.4	384.4	384.4	384.2	384.0	383.7	383.5	383.3	383.7
160°	388.9	388.7	388.5	388.3	388.1	388.0	387.9	387.8	387.7	387.6	388.1
162.5°	392.8	392.5	392.3	392.0	391.8	391.6	391.5	391.4	391.4	391.3	391.8
165°	397.7	397.4	397.0	396.7	396.3	396.1	396.1	396.1	396.1	396.1	396.7
167.5°	401.6	401.2	400.9	400.5	400.2	400.0	399.9	399.9	399.8	399.8	400.5
170°	403.8	403.4	402.9	402.6	402.2	402.0	402.1	402.2	402.2	402.3	402.8
172.5°	405.3	404.8	404.4	404.1	403.6	403.5	403.6	403.6	403.6	403.7	404.2
175°	406.8	406.4	406.0	405.6	405.2	405.0	405.1	405.2	405.3	405.3	406.0
177.5°	407.6	407.2	406.8	406.4	406.0	405.9	406.0	406.1	406.2	406.3	406.8
180°	406.8	406.8	406.8	406.8	406.8	406.8	406.8	406.8	406.8	406.8	406.8



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CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
0°	1227.8	1227.8	1227.8	1227.8	1227.8	1227.8	1227.8	1227.8
2.5°	1223.5	1225.2	1226.9	1227.6	1227.4	1227.1	1226.9	1226.7
5°	1220.3	1222.7	1225.1	1226.2	1225.9	1225.6	1225.3	1225.0
7.5°	1213.8	1216.5	1219.3	1220.5	1220.1	1219.9	1219.5	1219.3
10°	1207.1	1209.9	1212.6	1213.8	1213.6	1213.2	1212.9	1212.6
12.5°	1197.8	1200.3	1202.8	1204.1	1204.0	1203.9	1203.9	1203.9
15°	1181.0	1183.8	1186.5	1187.7	1187.4	1187.1	1186.8	1186.5
17.5°	1160.5	1163.3	1166.1	1167.4	1167.2	1166.9	1166.7	1166.4
20°	1144.5	1147.5	1150.6	1152.1	1152.1	1152.1	1152.1	1152.1
22.5°	1125.8	1128.9	1131.9	1133.7	1134.2	1134.6	1135.1	1135.7
25°	1097.0	1100.4	1103.7	1105.5	1105.9	1106.1	1106.5	1106.7
27.5°	1064.6	1067.7	1070.8	1072.5	1073.0	1073.3	1073.7	1074.0
30°	1042.0	1045.3	1048.7	1050.7	1051.3	1051.9	1052.5	1053.2
32.5°	1018.7	1022.6	1026.5	1028.7	1029.3	1029.9	1030.5	1031.1
35°	982.0	986.2	990.5	993.1	994.0	995.0	995.8	996.8
37.5°	943.6	947.9	952.3	954.9	955.9	956.8	957.9	958.8
40°	916.5	921.2	925.7	928.7	929.9	931.1	932.3	933.5
42.5°	890.0	895.1	900.2	903.2	904.2	905.2	906.1	907.1
45°	849.0	854.3	859.5	862.8	864.4	865.8	867.4	868.9
47.5°	805.7	811.1	816.5	820.0	821.9	823.7	825.5	827.4
50°	775.2	781.4	787.5	791.4	793.3	795.1	796.9	798.7
52.5°	744.5	750.6	756.6	760.7	762.5	764.3	766.1	768.0
55°	698.3	704.4	710.5	714.5	716.3	718.2	720.0	721.8
57.5°	649.7	657.0	664.3	668.7	670.5	672.2	673.9	675.6
60°	616.2	623.3	630.3	635.0	637.5	639.9	642.4	644.8
62.5°	583.2	590.3	597.3	602.0	604.5	606.9	609.3	611.8
65°	532.2	539.8	547.5	552.5	555.0	557.4	559.9	562.3
67.5°	482.2	489.9	497.7	502.7	505.1	507.5	509.9	512.3
70°	446.9	455.0	463.3	468.6	470.6	472.8	474.9	477.1
72.5°	413.4	421.4	429.4	434.5	437.0	439.3	441.7	444.1
75°	362.2	370.7	379.3	385.0	387.7	390.5	393.2	396.0
77.5°	314.6	323.3	331.9	337.8	340.7	343.6	346.6	349.5
80°	283.7	292.8	302.0	307.8	310.2	312.7	315.1	317.6
82.5°	253.4	262.8	272.2	278.3	280.9	283.6	286.3	289.0
85°	210.8	220.0	229.1	235.2	238.3	241.3	244.4	247.5
87.5°	176.2	185.2	194.2	199.9	202.7	205.3	208.1	210.8
90°	161.4	170.6	179.9	185.8	188.4	191.0	193.6	196.1
92.5°	154.0	163.0	172.0	177.8	180.3	182.7	185.2	187.7
95°	143.6	152.3	160.9	166.7	169.4	172.3	175.1	178.0
97.5°	135.2	143.3	151.3	156.7	159.4	162.0	164.8	167.5
100°	132.1	139.1	146.3	150.9	153.2	155.3	157.6	159.7
102.5°	154.7	150.3	145.9	144.9	147.3	149.7	152.1	154.5
105°	202.2	210.4	218.7	222.8	222.8	222.8	222.8	222.8
107.5°	216.8	224.5	232.4	237.5	240.0	242.5	244.9	247.4
110°	226.9	234.0	241.2	246.1	248.7	251.4	254.1	256.7



TEST NUMBER: P332673-935

CATALOG NUMBER: S124DIP-S1195D365U935-4F0-1E-UDD-D

CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
112.5°	235.9	242.6	249.4	254.2	256.8	259.5	262.3	264.9
115°	249.9	256.8	263.6	268.2	270.3	272.4	274.6	276.7
117.5°	263.6	269.8	276.2	280.5	283.0	285.4	287.8	290.2
120°	271.5	277.8	284.0	288.3	290.6	292.9	295.2	297.5
122.5°	279.7	285.9	292.1	296.3	298.3	300.4	302.5	304.5
125°	291.5	297.5	303.5	307.5	309.4	311.3	313.1	315.0
127.5°	301.8	307.2	312.7	316.4	318.4	320.5	322.4	324.5
130°	307.9	313.5	319.1	322.8	324.6	326.4	328.2	330.1
132.5°	314.4	319.8	325.1	328.6	330.5	332.3	334.0	335.8
135°	321.5	326.6	331.6	335.1	337.1	339.0	341.0	342.9
137.5°	329.5	334.1	338.7	341.7	343.2	344.7	346.2	347.7
140°	334.6	338.7	342.9	345.8	347.4	349.0	350.6	352.1
142.5°	340.0	343.6	347.3	349.7	351.0	352.3	353.6	355.0
145°	348.5	350.4	352.3	354.0	355.3	356.7	358.1	359.4
147.5°	356.3	356.5	356.9	357.5	358.6	359.6	360.7	361.7
150°	362.7	362.7	362.7	362.7	362.8	362.9	362.9	363.0
152.5°	368.8	368.9	369.0	369.0	368.9	368.9	368.9	368.9
155°	376.9	377.2	377.5	377.5	377.3	377.1	376.9	376.7
157.5°	384.0	384.4	384.7	384.7	384.4	384.0	383.7	383.3
160°	388.5	388.9	389.3	389.3	388.9	388.5	388.1	387.6
162.5°	392.1	392.5	393.0	392.9	392.4	392.0	391.5	391.1
165°	397.3	397.8	398.4	398.3	397.7	397.1	396.5	395.9
167.5°	401.1	401.7	402.2	402.2	401.5	400.8	400.1	399.5
170°	403.4	403.9	404.4	404.3	403.7	403.0	402.3	401.7
172.5°	404.8	405.4	405.9	405.8	405.1	404.3	403.6	402.9
175°	406.6	407.2	407.8	407.7	406.8	406.0	405.2	404.4
177.5°	407.3	407.7	408.1	407.9	407.3	406.7	406.0	405.4
180°	406.8	406.8	406.8	406.8	406.8	406.8	406.8	406.8

(END OF REPORT)