

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: P333432-930

Luminaire Tested: **S125DIW-S1090D470U930-4F0-1E-UDD-D**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P333432-930
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1807-864-7,
Test Lab: INNOVATION CENTER
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: NEO-RAY
Catalog Number: S125DIW-S1090D470U930-4F0-1E-UDD-D
Description: DEFINE 5 DIRECT-INDIRECT WALL MOUNT LED LUMINAIRE
DOWNLIGHT 1090 LUMENS PER FOOT, DROP SATIN WHITE DIFFUSER
UPLIGHT 470 LUMENS PER FOOT, NO LENS
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 5006.1 lumens
Efficiency: N/A
Efficacy: 108.4 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

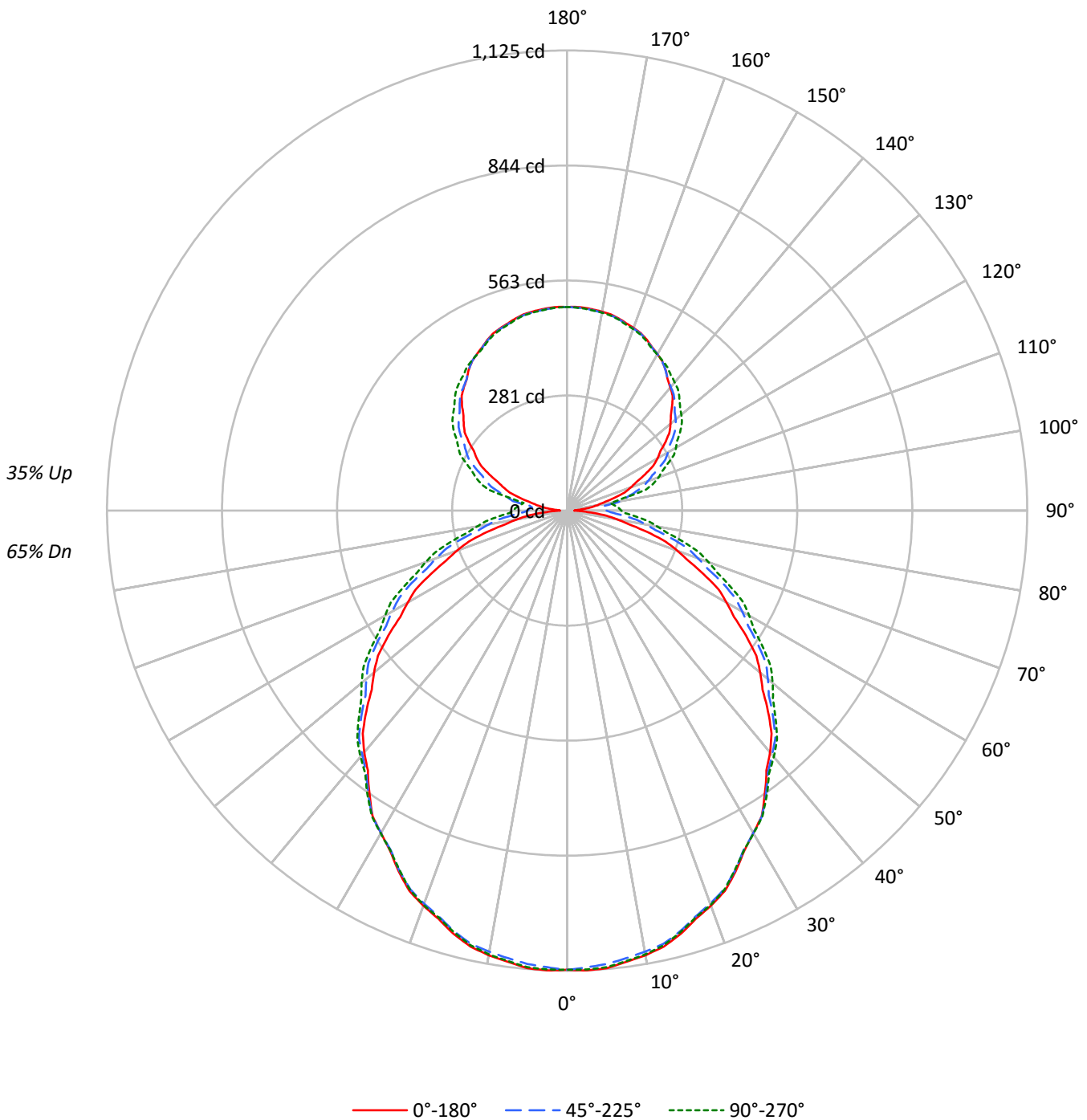
Input Watts (W): 46.2
Input Voltage (V): 120
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	111	111	111	111	104	104	104	104	92	92	92	81	81	81	70	70	70	65
1	100	95	91	87	94	90	86	82	79	76	74	69	67	65	60	59	57	53
2	91	83	76	70	85	78	72	67	69	64	60	60	57	54	53	50	48	44
3	83	72	65	58	77	68	61	56	60	55	50	53	49	45	46	43	40	36
4	76	64	56	49	71	60	53	47	54	47	43	47	42	38	41	37	34	31
5	69	57	48	42	65	54	46	40	48	41	37	42	37	33	37	33	30	27
6	64	51	43	36	60	48	41	35	43	37	32	38	33	29	34	29	26	23
7	59	46	38	32	55	44	36	31	39	33	28	35	30	26	31	26	23	21
8	55	42	34	28	51	40	32	27	36	29	25	32	27	23	28	24	21	18
9	51	38	31	25	48	36	29	24	33	27	22	29	24	21	26	22	19	17
10	48	35	28	23	45	34	27	22	30	24	20	27	22	19	24	20	17	15

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	7251	7251	7251
5°	7265	7116	7139
10°	7213	6989	6979
15°	7128	6837	6775
20°	7012	6650	6572
25°	6874	6448	6320
30°	6707	6226	6092
35°	6552	6023	5884
40°	6393	5809	5674
45°	6214	5626	5487
50°	6043	5427	5322
55°	5837	5239	5128
60°	5611	5024	4931
65°	5377	4800	4709
70°	5112	4494	4480
75°	4688	4200	4198
80°	4134	3842	3893
85°	3621	3600	3798



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	106.2	2.1
10°-20°	301.3	6.0
20°-30°	448.2	9.0
30°-40°	530.9	10.6
40°-50°	548.9	11.0
50°-60°	505.6	10.1
60°-70°	408.7	8.2
70°-80°	273.7	5.5
80°-90°	143.0	2.9
90°-100°	97.7	2.0
100°-110°	170.2	3.4
110°-120°	241.5	4.8
120°-130°	281.7	5.6
130°-140°	288.7	5.8
140°-150°	263.8	5.3
150°-160°	211.8	4.2
160°-170°	137.0	2.7
170°-180°	47.3	0.9
0°-30°	855.7	17.1
0°-40°	1386.5	27.7
0°-60°	2441.0	48.8
0°-90°	3266.4	65.2
90°-120°	509.4	10.2
90°-150°	1343.7	26.8
90°-180°	1740.0	34.8
0°-180°	5006.1	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1123	1123	1123	1123	1123	
5°	1123	1120	1113	1121	1120	106
15°	1072	1073	1065	1071	1068	302
25°	974	977	971	975	970	448
35°	843	850	848	851	851	527
45°	694	706	712	719	721	536
55°	534	551	569	581	586	477
65°	368	393	419	435	440	365
75°	202	232	266	287	294	215
85°	60	97	135	159	168	64
90°	18	56	96	122	132	13
95°	35	63	86	111	120	38
105°	118	138	170	192	200	125
115°	210	221	249	266	272	208
125°	294	296	317	333	338	262
135°	363	365	371	384	388	280
145°	420	419	419	425	428	262
155°	461	459	460	460	458	212
165°	486	484	485	487	484	137
175°	498	496	496	498	495	47
180°	498	498	498	498	498	



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CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	1122.7	1122.7	1122.7	1122.7	1122.7	1122.7	1122.7	1122.7	1122.7	1122.7	1122.7
2.5°	1125.3	1124.9	1124.5	1124.1	1123.7	1122.8	1121.4	1120.1	1118.8	1117.4	1118.8
5°	1122.7	1122.2	1121.7	1121.2	1120.7	1119.6	1117.9	1116.1	1114.4	1112.7	1114.7
7.5°	1112.7	1112.6	1112.3	1112.1	1112.0	1111.0	1109.2	1107.4	1105.7	1103.9	1105.6
10°	1103.9	1103.9	1103.9	1103.9	1103.9	1102.9	1101.0	1099.0	1097.1	1095.1	1096.8
12.5°	1091.6	1091.8	1092.0	1092.2	1092.4	1091.7	1090.1	1088.6	1087.0	1085.4	1086.8
15°	1072.0	1072.3	1072.5	1072.8	1073.0	1072.3	1070.6	1068.9	1067.1	1065.4	1066.9
17.5°	1046.4	1046.9	1047.4	1047.9	1048.4	1047.8	1046.1	1044.4	1042.7	1041.0	1042.1
20°	1028.0	1028.5	1029.0	1029.5	1030.0	1029.3	1027.6	1025.9	1024.2	1022.5	1023.2
22.5°	1006.8	1007.7	1008.6	1009.5	1010.4	1009.8	1008.0	1006.1	1004.1	1002.2	1003.1
25°	974.0	974.8	975.5	976.2	977.0	976.6	975.2	973.7	972.2	970.8	971.8
27.5°	937.5	938.6	939.6	940.8	941.8	941.5	939.9	938.2	936.5	934.9	935.6
30°	910.2	911.7	913.1	914.6	916.1	916.1	914.6	913.1	911.7	910.2	910.7
32.5°	885.6	886.8	888.1	889.4	890.6	890.7	889.7	888.6	887.5	886.5	887.0
35°	843.1	844.8	846.5	848.2	849.9	850.4	849.7	849.0	848.2	847.5	848.2
37.5°	800.6	802.2	803.7	805.3	806.8	807.6	807.3	807.1	806.8	806.6	807.6
40°	771.5	773.5	775.4	777.4	779.3	780.2	780.0	779.8	779.5	779.3	780.2
42.5°	739.8	742.4	744.9	747.5	750.0	751.5	752.1	752.6	753.2	753.7	754.9
45°	694.5	697.2	699.9	702.5	705.2	707.2	708.4	709.6	710.9	712.1	713.8
47.5°	648.1	650.5	653.1	655.5	658.0	660.3	662.4	664.6	666.7	668.7	671.2
50°	616.4	619.1	621.7	624.4	627.1	629.8	632.5	635.2	637.9	640.6	643.3
52.5°	582.9	586.2	589.5	592.7	596.0	599.2	602.6	605.8	609.1	612.4	615.3
55°	533.8	537.7	541.6	545.5	549.4	553.3	557.3	561.2	565.1	569.0	571.7
57.5°	483.6	488.3	493.0	497.7	502.4	507.0	511.5	516.0	520.5	525.0	528.1
60°	450.1	455.0	459.9	464.8	469.7	474.6	479.5	484.4	489.3	494.2	497.8
62.5°	417.6	422.5	427.4	432.3	437.2	442.2	447.5	452.8	458.1	463.3	467.4
65°	367.6	373.2	378.9	384.5	390.1	395.8	401.7	407.6	413.4	419.3	423.0
67.5°	320.5	326.0	331.3	336.8	342.2	347.9	353.9	359.9	365.8	371.8	376.3
70°	286.2	291.8	297.4	303.0	308.7	314.6	321.0	327.3	333.7	340.1	344.7
72.5°	252.7	258.5	264.3	270.2	276.0	282.3	289.3	296.3	303.2	310.1	315.2
75°	202.5	208.9	215.2	221.6	228.0	235.1	242.9	250.7	258.5	266.4	271.3
77.5°	154.3	161.7	169.0	176.3	183.7	191.1	198.6	206.2	213.7	221.2	226.6
80°	124.3	131.7	139.0	146.3	153.7	161.5	169.8	178.1	186.5	194.8	200.2
82.5°	97.1	104.8	112.5	120.3	128.0	136.1	144.6	153.1	161.7	170.2	175.4
85°	60.5	68.6	76.6	84.7	92.8	101.1	109.7	118.2	126.8	135.3	140.7
87.5°	34.4	42.4	50.3	58.3	66.3	74.4	82.8	91.3	99.7	108.2	113.9
90°	18.0	26.5	35.0	43.5	51.9	60.6	69.5	78.4	87.2	96.1	102.2
92.5°	21.5	28.3	35.1	41.9	48.7	56.6	65.6	74.6	83.6	92.6	98.5
95°	35.3	41.4	47.5	53.6	59.8	65.5	70.6	75.8	81.0	86.3	92.0
97.5°	56.9	63.0	69.2	75.4	81.5	85.5	87.4	89.3	91.2	93.0	95.8
100°	73.7	79.1	84.5	89.8	95.2	102.0	110.1	118.3	126.5	134.6	127.5
102.5°	90.8	95.9	100.9	106.0	111.0	117.5	125.3	133.1	141.0	148.8	151.4
105°	118.4	122.6	126.9	131.1	135.3	141.1	148.5	155.8	163.1	170.5	175.4
107.5°	147.0	150.3	153.6	156.9	160.3	165.5	172.8	179.9	187.2	194.4	199.3
110°	165.6	168.5	171.5	174.4	177.3	182.3	189.3	196.3	203.3	210.3	214.7



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CATALOG NUMBER: S125DIW-S1090D470U930-4F0-1E-UDD-D

CANDELA DISTRIBUTION (continued):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	183.8	186.4	189.0	191.5	194.0	198.7	205.5	212.2	218.9	225.7	229.8
115°	210.2	212.3	214.4	216.5	218.7	223.0	229.4	235.9	242.3	248.7	252.8
117.5°	237.5	238.6	239.7	240.8	241.9	245.6	252.0	258.3	264.6	271.0	274.7
120°	255.2	255.8	256.5	257.1	257.8	261.1	266.9	272.8	278.7	284.5	288.5
122.5°	269.9	270.6	271.3	271.9	272.6	275.7	281.2	286.7	292.3	297.8	301.7
125°	293.9	294.2	294.6	294.9	295.2	297.8	302.7	307.6	312.5	317.4	321.0
127.5°	315.9	316.1	316.3	316.4	316.6	318.6	322.6	326.6	330.5	334.5	337.9
130°	330.1	330.3	330.4	330.6	330.8	332.6	336.1	339.6	343.1	346.6	349.8
132.5°	343.4	343.8	344.2	344.6	345.1	346.5	348.9	351.5	353.9	356.4	359.7
135°	363.3	363.5	363.8	364.0	364.3	365.2	366.7	368.3	369.8	371.4	374.4
137.5°	381.6	381.8	382.0	382.3	382.5	382.9	383.7	384.3	385.0	385.7	388.7
140°	392.8	393.0	393.1	393.3	393.5	393.6	393.8	394.0	394.1	394.3	397.1
142.5°	403.7	403.7	403.5	403.4	403.3	403.3	403.5	403.7	403.8	404.0	406.3
145°	419.7	419.6	419.6	419.5	419.4	419.4	419.4	419.4	419.4	419.4	420.7
147.5°	432.7	432.6	432.6	432.5	432.5	432.5	432.7	432.8	432.8	432.9	433.4
150°	441.5	441.3	441.2	441.0	440.8	440.8	441.0	441.2	441.3	441.5	441.6
152.5°	450.0	449.7	449.3	449.0	448.6	448.5	448.7	448.8	449.0	449.1	449.3
155°	461.1	460.6	460.1	459.6	459.1	458.9	459.1	459.3	459.4	459.6	459.8
157.5°	469.5	469.2	469.0	468.6	468.3	468.2	468.2	468.2	468.2	468.3	468.6
160°	475.4	474.9	474.4	473.9	473.4	473.3	473.4	473.4	473.5	473.6	473.9
162.5°	480.1	479.6	479.2	478.7	478.2	478.0	478.1	478.2	478.3	478.3	478.7
165°	486.5	486.0	485.5	485.0	484.5	484.3	484.4	484.5	484.5	484.6	485.1
167.5°	491.2	490.7	490.2	489.7	489.2	488.9	489.0	489.1	489.2	489.3	489.9
170°	493.9	493.3	492.7	492.1	491.5	491.3	491.4	491.5	491.5	491.6	492.3
172.5°	495.6	495.0	494.5	493.9	493.3	493.2	493.3	493.4	493.6	493.7	494.3
175°	497.6	497.1	496.6	496.1	495.6	495.4	495.5	495.5	495.6	495.7	496.4
177.5°	498.5	498.1	497.7	497.3	496.8	496.7	496.8	496.8	496.9	497.0	497.4
180°	497.6	497.6	497.6	497.6	497.6	497.6	497.6	497.6	497.6	497.6	497.6



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CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
0°	1122.7	1122.7	1122.7	1122.7	1122.7	1122.7	1122.7	1122.7
2.5°	1120.1	1121.4	1122.8	1123.4	1123.2	1123.0	1122.8	1122.7
5°	1116.6	1118.6	1120.5	1121.4	1121.2	1121.0	1120.7	1120.5
7.5°	1107.3	1109.1	1110.8	1111.5	1111.3	1111.0	1110.8	1110.5
10°	1098.5	1100.2	1102.0	1102.7	1102.4	1102.2	1102.0	1101.7
12.5°	1088.1	1089.4	1090.7	1091.0	1090.5	1089.8	1089.2	1088.5
15°	1068.4	1069.8	1071.3	1071.5	1070.6	1069.6	1068.6	1067.6
17.5°	1043.3	1044.3	1045.5	1045.7	1045.1	1044.6	1044.0	1043.4
20°	1023.9	1024.7	1025.4	1025.8	1025.8	1025.8	1025.8	1025.8
22.5°	1004.1	1005.0	1005.9	1006.1	1005.5	1004.9	1004.4	1003.8
25°	972.7	973.7	974.7	974.5	973.3	972.1	970.9	969.6
27.5°	936.2	936.9	937.6	937.8	937.3	936.9	936.4	936.0
30°	911.2	911.7	912.2	912.3	912.1	911.8	911.6	911.3
32.5°	887.5	887.9	888.4	888.5	888.3	888.0	887.8	887.5
35°	849.0	849.7	850.4	850.8	850.8	850.8	850.8	850.8
37.5°	808.5	809.5	810.5	810.9	810.8	810.7	810.6	810.5
40°	781.2	782.2	783.2	783.9	784.4	784.9	785.4	785.9
42.5°	756.0	757.2	758.4	759.0	759.1	759.2	759.4	759.5
45°	715.5	717.2	718.9	719.9	720.2	720.4	720.6	720.9
47.5°	673.8	676.2	678.7	680.2	680.8	681.3	681.8	682.4
50°	646.0	648.7	651.3	653.1	653.8	654.5	655.3	656.0
52.5°	618.2	621.0	623.9	625.7	626.1	626.7	627.3	627.8
55°	574.4	577.1	579.8	581.6	582.6	583.6	584.6	585.5
57.5°	531.2	534.3	537.4	539.2	540.0	540.7	541.4	542.2
60°	501.5	505.2	508.8	511.0	511.8	512.5	513.2	514.0
62.5°	471.5	475.6	479.6	482.1	483.1	484.0	484.9	485.8
65°	426.6	430.3	434.0	436.3	437.3	438.3	439.3	440.3
67.5°	380.7	385.1	389.6	392.5	393.7	395.0	396.2	397.5
70°	349.4	354.0	358.7	361.7	363.2	364.7	366.2	367.6
72.5°	320.2	325.3	330.3	333.4	334.4	335.5	336.6	337.7
75°	276.1	281.0	285.9	288.9	290.2	291.4	292.6	293.8
77.5°	232.0	237.3	242.7	245.9	246.9	247.9	248.8	249.8
80°	205.5	210.9	216.3	219.5	220.5	221.4	222.4	223.4
82.5°	180.5	185.7	190.9	194.4	196.2	197.9	199.7	201.4
85°	146.1	151.5	156.9	160.5	162.5	164.4	166.4	168.4
87.5°	119.6	125.3	131.0	134.7	136.5	138.3	140.0	141.8
90°	108.2	114.2	120.3	124.3	126.2	128.2	130.2	132.2
92.5°	104.3	110.1	116.0	119.8	121.6	123.4	125.3	127.1
95°	97.8	103.6	109.4	113.2	114.9	116.6	118.3	120.0
97.5°	98.7	101.4	104.3	106.6	108.2	109.8	111.5	113.2
100°	120.5	113.4	106.3	103.4	104.5	105.7	106.7	107.9
102.5°	154.1	156.7	159.3	158.6	154.5	150.3	146.3	142.2
105°	180.3	185.2	190.0	193.3	194.9	196.6	198.2	199.8
107.5°	204.1	209.0	213.9	216.9	218.2	219.4	220.7	221.9
110°	219.2	223.6	228.0	231.1	232.8	234.6	236.4	238.2



TEST NUMBER: P333432-930

CATALOG NUMBER: S125DIW-S1090D470U930-4F0-1E-UDD-D

CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
112.5°	234.0	238.1	242.2	245.2	246.7	248.3	249.9	251.5
115°	256.9	261.0	265.1	267.6	268.6	269.5	270.5	271.5
117.5°	278.4	282.2	285.9	288.5	289.9	291.4	292.9	294.3
120°	292.5	296.5	300.5	303.0	304.1	305.2	306.2	307.3
122.5°	305.5	309.2	313.1	315.4	316.4	317.4	318.5	319.4
125°	324.6	328.2	331.7	334.0	335.0	336.0	337.0	337.9
127.5°	341.4	344.8	348.3	350.4	351.2	352.0	352.8	353.6
130°	352.9	356.1	359.3	361.3	362.2	363.0	363.8	364.6
132.5°	363.1	366.5	369.9	371.9	372.5	373.1	373.7	374.3
135°	377.4	380.4	383.4	385.3	386.0	386.8	387.5	388.2
137.5°	391.5	394.4	397.4	399.1	399.7	400.2	400.8	401.3
140°	400.0	402.8	405.7	407.3	407.8	408.3	408.8	409.3
142.5°	408.7	411.0	413.4	414.7	415.2	415.7	416.2	416.7
145°	422.0	423.3	424.6	425.5	426.0	426.5	427.0	427.5
147.5°	433.9	434.4	434.9	435.0	434.9	434.8	434.6	434.5
150°	441.8	442.0	442.1	442.1	441.6	441.2	440.8	440.4
152.5°	449.5	449.6	449.8	449.6	449.1	448.6	448.0	447.4
155°	460.1	460.3	460.6	460.3	459.7	459.0	458.4	457.7
157.5°	468.8	469.0	469.3	469.1	468.5	467.8	467.2	466.5
160°	474.3	474.6	474.9	474.7	474.1	473.4	472.8	472.1
162.5°	479.2	479.7	480.1	480.0	479.3	478.6	477.8	477.1
165°	485.7	486.2	486.7	486.6	485.9	485.2	484.5	483.9
167.5°	490.5	491.1	491.6	491.6	490.8	490.1	489.3	488.6
170°	492.9	493.7	494.3	494.2	493.5	492.8	492.0	491.3
172.5°	494.9	495.5	496.1	496.0	495.3	494.6	493.8	493.1
175°	497.0	497.7	498.3	498.3	497.6	496.8	496.1	495.4
177.5°	497.9	498.3	498.8	498.8	498.2	497.7	497.2	496.7
180°	497.6	497.6	497.6	497.6	497.6	497.6	497.6	497.6

(END OF REPORT)