

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: P333432-830

Luminaire Tested: **S125DIW-S1090D470U830-4F0-1E-UDD-D**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P333432-830
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-S1090D470U830-4F0-1E-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: 5787.4 lumens
Efficiency: N/A
Efficacy: 125.3 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

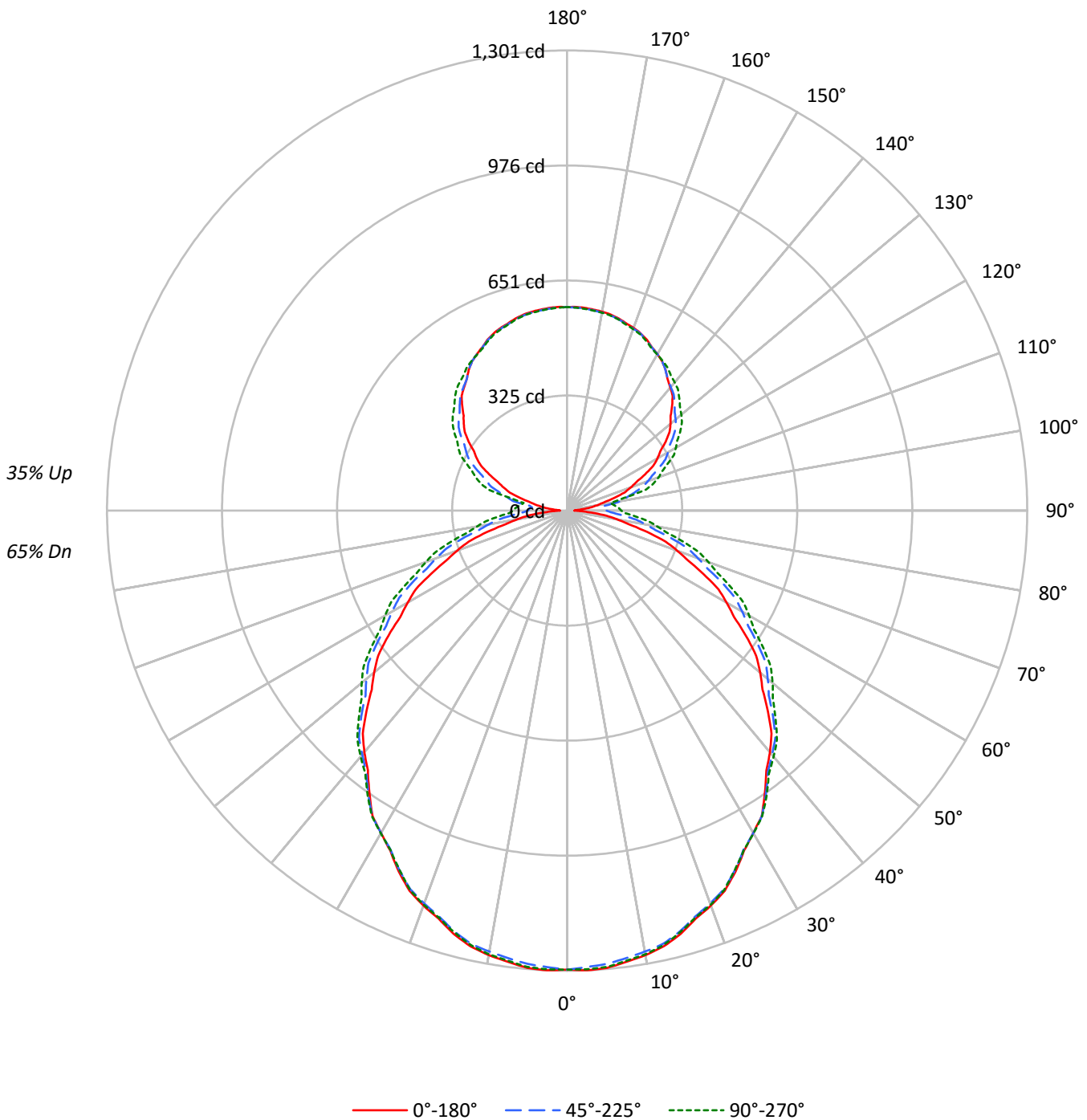
Input Watts (W): 46.2
Input Voltage (V): 120
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Luminous Intensity Polar Plot





TEST NUMBER: P333432-830

CATALOG NUMBER: S125DIW-S1090D470U830-4F0-1E-UDD-D

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°	8382	8382	8382
5°	8399	8227	8253
10°	8339	8080	8068
15°	8240	7905	7833
20°	8107	7687	7597
25°	7947	7455	7307
30°	7754	7199	7044
35°	7574	6964	6802
40°	7390	6715	6559
45°	7184	6503	6343
50°	6986	6274	6153
55°	6748	6056	5928
60°	6488	5808	5700
65°	6217	5549	5444
70°	5908	5194	5179
75°	5420	4854	4854
80°	4780	4442	4501
85°	4183	4164	4388



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	122.7	2.1
10°-20°	348.4	6.0
20°-30°	518.1	9.0
30°-40°	613.7	10.6
40°-50°	634.5	11.0
50°-60°	584.5	10.1
60°-70°	472.5	8.2
70°-80°	316.4	5.5
80°-90°	165.3	2.9
90°-100°	113.0	2.0
100°-110°	196.7	3.4
110°-120°	279.2	4.8
120°-130°	325.7	5.6
130°-140°	333.8	5.8
140°-150°	305.0	5.3
150°-160°	244.9	4.2
160°-170°	158.4	2.7
170°-180°	54.6	0.9
0°-30°	989.2	17.1
0°-40°	1602.9	27.7
0°-60°	2821.9	48.8
0°-90°	3776.1	65.2
90°-120°	588.9	10.2
90°-150°	1553.4	26.8
90°-180°	2011.0	34.7
0°-180°	5787.4	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1298	1298	1298	1298	1298	
5°	1298	1295	1286	1296	1295	123
15°	1239	1240	1232	1239	1234	349
25°	1126	1129	1122	1127	1121	518
35°	975	983	980	983	984	610
45°	803	816	823	832	833	619
55°	617	637	658	671	677	551
65°	425	454	485	503	509	422
75°	234	268	308	332	340	248
85°	70	112	156	183	195	75
90°	21	65	111	141	153	15
95°	41	72	100	129	139	44
105°	137	160	197	222	231	145
115°	243	255	288	308	314	241
125°	340	343	367	385	391	303
135°	420	422	429	444	449	324
145°	485	485	485	491	494	303
155°	533	531	531	532	529	245
165°	562	560	560	563	559	159
175°	575	573	573	576	573	55
180°	575	575	575	575	575	



TEST NUMBER: P333432-830

CATALOG NUMBER: S125DIW-S1090D470U830-4F0-1E-UDD-D

CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	1297.9	1297.9	1297.9	1297.9	1297.9	1297.9	1297.9	1297.9	1297.9	1297.9	1297.9
2.5°	1300.9	1300.4	1300.0	1299.6	1299.1	1298.1	1296.5	1294.9	1293.4	1291.8	1293.4
5°	1297.9	1297.3	1296.8	1296.2	1295.6	1294.3	1292.3	1290.3	1288.4	1286.4	1288.6
7.5°	1286.4	1286.2	1285.9	1285.7	1285.5	1284.4	1282.3	1280.3	1278.3	1276.2	1278.2
10°	1276.2	1276.2	1276.2	1276.2	1276.2	1275.1	1272.8	1270.5	1268.3	1266.0	1268.0
12.5°	1262.0	1262.2	1262.4	1262.6	1262.9	1262.1	1260.3	1258.5	1256.7	1254.8	1256.4
15°	1239.3	1239.6	1239.9	1240.2	1240.5	1239.6	1237.7	1235.7	1233.7	1231.7	1233.4
17.5°	1209.8	1210.3	1210.9	1211.4	1212.0	1211.4	1209.4	1207.4	1205.4	1203.4	1204.8
20°	1188.5	1189.0	1189.6	1190.1	1190.7	1190.0	1188.0	1186.0	1184.0	1182.0	1182.9
22.5°	1163.9	1165.0	1166.0	1167.1	1168.1	1167.4	1165.3	1163.1	1160.8	1158.7	1159.7
25°	1126.1	1126.9	1127.8	1128.6	1129.4	1129.1	1127.4	1125.7	1124.0	1122.3	1123.4
27.5°	1083.8	1085.1	1086.3	1087.6	1088.8	1088.4	1086.6	1084.6	1082.7	1080.8	1081.6
30°	1052.3	1054.0	1055.6	1057.3	1059.0	1059.0	1057.3	1055.6	1054.0	1052.3	1052.8
32.5°	1023.8	1025.2	1026.7	1028.2	1029.6	1029.7	1028.5	1027.3	1026.1	1024.8	1025.4
35°	974.7	976.7	978.6	980.6	982.6	983.2	982.3	981.5	980.6	979.8	980.6
37.5°	925.6	927.4	929.2	930.9	932.7	933.6	933.3	933.0	932.7	932.5	933.6
40°	891.9	894.2	896.5	898.7	901.0	902.0	901.7	901.4	901.2	900.9	902.0
42.5°	855.3	858.3	861.2	864.1	867.0	868.8	869.5	870.1	870.7	871.4	872.7
45°	802.9	806.0	809.1	812.2	815.3	817.6	819.0	820.4	821.8	823.2	825.2
47.5°	749.2	752.1	755.0	757.8	760.7	763.4	765.8	768.3	770.7	773.1	776.0
50°	712.6	715.7	718.8	721.9	725.0	728.1	731.2	734.3	737.4	740.6	743.7
52.5°	673.8	677.7	681.5	685.2	689.0	692.8	696.6	700.4	704.2	707.9	711.3
55°	617.1	621.6	626.1	630.7	635.2	639.7	644.2	648.8	653.3	657.8	660.9
57.5°	559.1	564.5	570.0	575.4	580.8	586.2	591.4	596.5	601.7	606.9	610.5
60°	520.4	526.0	531.7	537.3	543.0	548.7	554.3	560.0	565.6	571.3	575.5
62.5°	482.8	488.4	494.1	499.7	505.4	511.2	517.4	523.5	529.6	535.6	540.4
65°	425.0	431.5	438.0	444.5	451.0	457.6	464.4	471.2	478.0	484.7	489.0
67.5°	370.5	376.8	383.0	389.4	395.6	402.2	409.2	416.0	422.9	429.8	435.0
70°	330.8	337.3	343.8	350.3	356.8	363.7	371.1	378.4	385.8	393.1	398.5
72.5°	292.2	298.9	305.6	312.4	319.1	326.4	334.5	342.5	350.5	358.5	364.4
75°	234.1	241.5	248.8	256.2	263.5	271.7	280.8	289.8	298.9	307.9	313.6
77.5°	178.4	186.9	195.4	203.9	212.4	220.9	229.6	238.4	247.0	255.7	261.9
80°	143.7	152.2	160.7	169.2	177.7	186.7	196.3	205.9	215.6	225.2	231.4
82.5°	112.3	121.1	130.1	139.0	148.0	157.3	167.2	177.0	186.9	196.7	202.7
85°	69.9	79.3	88.6	97.9	107.3	116.9	126.8	136.7	146.6	156.5	162.7
87.5°	39.8	49.0	58.2	67.4	76.6	86.1	95.8	105.6	115.3	125.1	131.7
90°	20.8	30.6	40.4	50.2	60.0	70.0	80.3	90.6	100.9	111.1	118.1
92.5°	24.9	32.7	40.5	48.4	56.3	65.4	75.8	86.2	96.7	107.1	113.9
95°	40.8	47.9	55.0	62.0	69.1	75.7	81.6	87.7	93.7	99.7	106.4
97.5°	65.8	72.9	80.0	87.2	94.3	98.9	101.0	103.2	105.4	107.5	110.7
100°	85.2	91.4	97.6	103.9	110.1	117.9	127.3	136.8	146.2	155.6	164.7
102.5°	105.0	110.8	116.7	122.5	128.4	135.8	144.9	153.9	163.0	172.0	175.0
105°	136.9	141.8	146.7	151.6	156.5	163.2	171.6	180.1	188.6	197.1	202.7
107.5°	169.9	173.7	177.6	181.4	185.3	191.3	199.7	208.0	216.4	224.7	230.4
110°	191.4	194.8	198.2	201.6	205.0	210.8	218.9	227.0	235.1	243.2	248.3



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CATALOG NUMBER: S125DIW-S1090D470U830-4F0-1E-UDD-D

CANDELA DISTRIBUTION (continued):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	212.5	215.5	218.5	221.4	224.3	229.7	237.5	245.3	253.1	260.9	265.7
115°	243.0	245.4	247.9	250.3	252.8	257.8	265.2	272.7	280.1	287.6	292.3
117.5°	274.6	275.9	277.1	278.4	279.7	284.0	291.3	298.6	305.9	313.3	317.5
120°	295.0	295.8	296.5	297.3	298.0	301.8	308.6	315.4	322.2	328.9	333.6
122.5°	312.1	312.8	313.6	314.3	315.1	318.7	325.1	331.5	337.9	344.3	348.7
125°	339.8	340.2	340.5	340.9	341.3	344.3	350.0	355.6	361.3	366.9	371.1
127.5°	365.2	365.4	365.6	365.8	366.0	368.3	373.0	377.6	382.1	386.7	390.7
130°	381.6	381.8	382.0	382.2	382.4	384.5	388.5	392.6	396.6	400.7	404.4
132.5°	397.0	397.5	397.9	398.4	399.0	400.6	403.4	406.3	409.2	412.0	415.8
135°	420.0	420.3	420.6	420.8	421.1	422.2	424.0	425.7	427.5	429.3	432.8
137.5°	441.1	441.4	441.7	442.0	442.2	442.7	443.6	444.3	445.1	445.9	449.3
140°	454.1	454.3	454.5	454.7	454.9	455.1	455.2	455.4	455.6	455.8	459.1
142.5°	466.7	466.7	466.5	466.4	466.3	466.3	466.5	466.7	466.8	467.0	469.8
145°	485.2	485.1	485.0	484.9	484.8	484.8	484.8	484.8	484.8	484.8	486.4
147.5°	500.2	500.1	500.1	500.0	500.0	500.0	500.2	500.3	500.4	500.5	501.1
150°	510.4	510.2	510.0	509.8	509.6	509.6	509.8	510.0	510.2	510.4	510.6
152.5°	520.3	519.9	519.4	519.1	518.6	518.5	518.7	518.9	519.1	519.2	519.4
155°	533.0	532.4	531.9	531.3	530.7	530.6	530.7	530.9	531.1	531.3	531.6
157.5°	542.8	542.4	542.2	541.8	541.4	541.3	541.3	541.3	541.3	541.4	541.7
160°	549.6	549.0	548.5	547.9	547.3	547.1	547.2	547.3	547.4	547.5	547.9
162.5°	555.1	554.5	553.9	553.4	552.8	552.6	552.7	552.8	552.9	553.0	553.5
165°	562.4	561.8	561.3	560.7	560.2	559.9	560.0	560.1	560.2	560.2	560.8
167.5°	567.9	567.3	566.8	566.1	565.5	565.2	565.3	565.4	565.5	565.6	566.4
170°	571.0	570.3	569.6	568.9	568.3	568.0	568.1	568.2	568.3	568.4	569.1
172.5°	573.0	572.3	571.7	571.0	570.3	570.1	570.2	570.4	570.6	570.8	571.5
175°	575.2	574.7	574.1	573.5	573.0	572.7	572.8	572.9	573.0	573.1	573.8
177.5°	576.3	575.8	575.3	574.9	574.4	574.2	574.3	574.4	574.5	574.6	575.0
180°	575.2	575.2	575.2	575.2	575.2	575.2	575.2	575.2	575.2	575.2	575.2



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CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
0°	1297.9	1297.9	1297.9	1297.9	1297.9	1297.9	1297.9	1297.9
2.5°	1294.9	1296.5	1298.1	1298.7	1298.5	1298.3	1298.1	1297.9
5°	1290.9	1293.2	1295.4	1296.5	1296.2	1295.9	1295.6	1295.3
7.5°	1280.2	1282.1	1284.1	1285.0	1284.7	1284.4	1284.1	1283.8
10°	1270.0	1272.0	1273.9	1274.8	1274.5	1274.2	1273.9	1273.7
12.5°	1257.9	1259.4	1260.9	1261.3	1260.7	1259.9	1259.1	1258.4
15°	1235.1	1236.8	1238.5	1238.8	1237.7	1236.5	1235.4	1234.3
17.5°	1206.1	1207.3	1208.6	1208.9	1208.2	1207.6	1206.9	1206.3
20°	1183.7	1184.6	1185.4	1185.9	1185.9	1185.9	1185.9	1185.9
22.5°	1160.8	1161.9	1162.9	1163.1	1162.4	1161.8	1161.1	1160.5
25°	1124.5	1125.7	1126.8	1126.6	1125.2	1123.8	1122.4	1121.0
27.5°	1082.3	1083.2	1083.9	1084.1	1083.5	1083.1	1082.5	1082.0
30°	1053.4	1054.0	1054.5	1054.7	1054.4	1054.1	1053.9	1053.6
32.5°	1026.0	1026.5	1027.1	1027.2	1026.9	1026.6	1026.3	1026.1
35°	981.5	982.3	983.2	983.5	983.5	983.5	983.5	983.5
37.5°	934.7	935.9	937.0	937.5	937.4	937.3	937.1	937.0
40°	903.1	904.3	905.4	906.3	906.8	907.4	908.0	908.5
42.5°	874.0	875.4	876.8	877.5	877.6	877.7	877.9	878.0
45°	827.2	829.2	831.1	832.3	832.5	832.8	833.1	833.4
47.5°	778.9	781.7	784.7	786.4	787.0	787.7	788.2	788.9
50°	746.8	749.9	753.0	755.0	755.8	756.7	757.5	758.4
52.5°	714.6	717.9	721.3	723.3	723.9	724.5	725.2	725.8
55°	664.0	667.1	670.2	672.4	673.5	674.7	675.8	676.9
57.5°	614.1	617.6	621.2	623.4	624.2	625.1	625.9	626.8
60°	579.8	584.0	588.2	590.8	591.6	592.5	593.3	594.2
62.5°	545.1	549.8	554.5	557.3	558.5	559.5	560.5	561.7
65°	493.2	497.5	501.7	504.4	505.6	506.7	507.8	509.0
67.5°	440.1	445.3	450.4	453.7	455.2	456.7	458.1	459.6
70°	403.9	409.3	414.6	418.2	419.9	421.6	423.3	425.0
72.5°	370.2	376.1	381.8	385.4	386.6	387.9	389.1	390.4
75°	319.2	324.9	330.5	334.0	335.5	336.9	338.3	339.7
77.5°	268.2	274.4	280.6	284.3	285.4	286.5	287.7	288.8
80°	237.6	243.8	250.1	253.7	254.9	256.0	257.1	258.3
82.5°	208.7	214.7	220.6	224.7	226.8	228.8	230.8	232.8
85°	168.9	175.1	181.3	185.6	187.8	190.1	192.4	194.6
87.5°	138.3	144.9	151.5	155.7	157.8	159.9	161.8	163.9
90°	125.1	132.1	139.0	143.6	145.9	148.3	150.5	152.8
92.5°	120.6	127.3	134.1	138.6	140.6	142.7	144.9	146.9
95°	113.1	119.8	126.5	130.8	132.8	134.8	136.8	138.7
97.5°	114.0	117.3	120.6	123.2	125.1	127.0	128.9	130.8
100°	139.3	131.1	122.9	119.5	120.8	122.2	123.4	124.7
102.5°	178.1	181.2	184.2	183.3	178.6	173.8	169.1	164.4
105°	208.4	214.1	219.7	223.5	225.4	227.2	229.1	231.0
107.5°	235.9	241.6	247.2	250.7	252.2	253.6	255.1	256.6
110°	253.4	258.4	263.5	267.1	269.2	271.3	273.3	275.4



TEST NUMBER: P333432-830

CATALOG NUMBER: S125DIW-S1090D470U830-4F0-1E-UDD-D

CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
112.5°	270.5	275.3	280.0	283.4	285.2	287.1	288.9	290.8
115°	297.0	301.7	306.4	309.3	310.5	311.6	312.7	313.9
117.5°	321.9	326.2	330.5	333.5	335.2	336.9	338.6	340.3
120°	338.2	342.8	347.4	350.3	351.6	352.8	354.0	355.2
122.5°	353.2	357.5	361.9	364.7	365.8	366.9	368.2	369.3
125°	375.2	379.4	383.5	386.2	387.3	388.4	389.6	390.7
127.5°	394.6	398.6	402.7	405.1	406.0	407.0	407.8	408.8
130°	408.0	411.7	415.4	417.7	418.7	419.6	420.6	421.5
132.5°	419.8	423.7	427.6	429.9	430.6	431.3	432.1	432.7
135°	436.3	439.8	443.3	445.4	446.3	447.1	448.0	448.8
137.5°	452.6	456.0	459.4	461.4	462.0	462.7	463.4	463.9
140°	462.4	465.7	469.0	470.9	471.5	472.0	472.6	473.2
142.5°	472.5	475.1	477.9	479.5	480.0	480.6	481.2	481.7
145°	487.9	489.4	490.9	491.9	492.5	493.0	493.6	494.2
147.5°	501.6	502.2	502.8	502.9	502.8	502.7	502.5	502.3
150°	510.8	511.0	511.1	511.0	510.6	510.1	509.6	509.2
152.5°	519.6	519.8	520.0	519.8	519.2	518.6	517.9	517.3
155°	531.9	532.2	532.4	532.2	531.4	530.7	529.9	529.1
157.5°	542.0	542.2	542.5	542.3	541.6	540.8	540.1	539.3
160°	548.3	548.7	549.0	548.8	548.1	547.3	546.6	545.8
162.5°	554.0	554.6	555.1	555.0	554.1	553.3	552.4	551.6
165°	561.5	562.0	562.6	562.5	561.8	560.9	560.2	559.4
167.5°	567.0	567.7	568.4	568.4	567.4	566.6	565.7	564.9
170°	569.9	570.7	571.5	571.4	570.5	569.7	568.8	568.0
172.5°	572.1	572.8	573.5	573.4	572.6	571.7	570.9	570.0
175°	574.6	575.3	576.1	576.1	575.2	574.4	573.5	572.7
177.5°	575.6	576.1	576.6	576.6	576.0	575.4	574.8	574.2
180°	575.2	575.2	575.2	575.2	575.2	575.2	575.2	575.2

(END OF REPORT)