

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: P333433-830

Luminaire Tested: **S125DIW-S1090D470U830-4F0-1E-UDD-D1**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P333433-830
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: S125DIW-S1090D470U830-4F0-1E-UDD-D1
Description: DEFINE 5 DIRECT-INDIRECT WALL MOUNT LED LUMINAIRE
DOWNLIGHT 1090 LUMENS PER FOOT, DROP SATIN WHITE DIFFUSER
UPLIGHT 470 LUMENS PER FOOT, FLUSH SATIN WHITE DIFFUSER
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 5552.8 lumens
Efficiency: N/A
Efficacy: 120.2 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

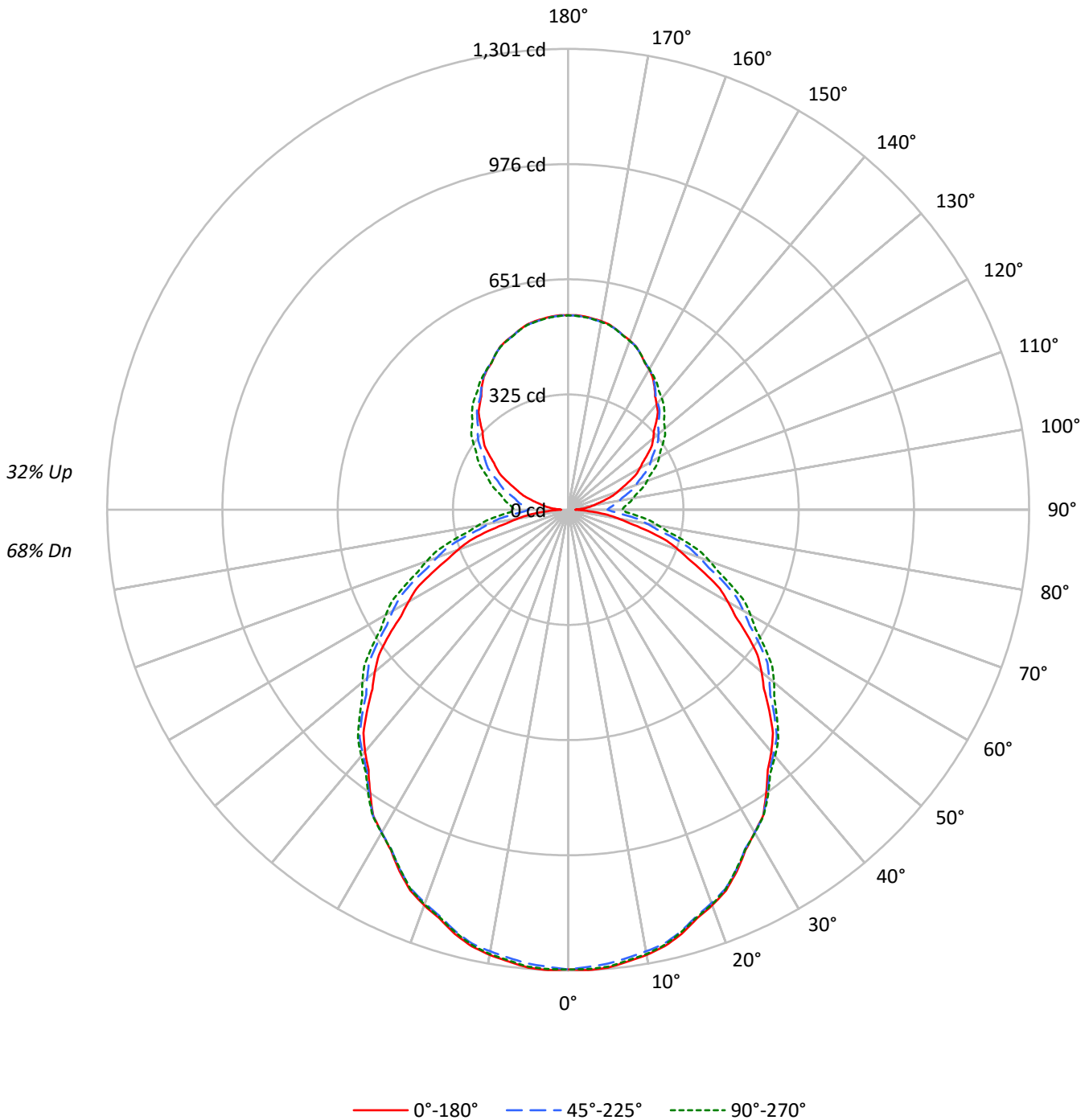
Input Watts (W): 46.2
Input Voltage (V): 120
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	105	105	105	105	93	93	93	83	83	83	73	73	73	68
1	101	96	92	88	95	91	87	83	80	77	75	71	69	67	63	61	59	55
2	91	83	76	71	86	79	73	67	70	65	61	62	58	55	55	52	49	45
3	83	73	65	59	78	69	62	56	61	56	51	54	50	46	48	45	41	38
4	76	64	56	49	71	61	53	47	54	48	43	48	43	39	43	39	36	32
5	70	57	49	42	65	54	46	41	49	42	37	43	38	34	38	34	31	28
6	64	51	43	37	60	49	41	35	44	37	32	39	34	30	35	30	27	24
7	59	46	38	32	56	44	36	31	40	33	29	36	30	26	32	27	24	22
8	55	42	34	28	52	40	33	27	36	30	25	33	27	23	29	25	21	19
9	52	39	31	25	48	37	30	25	33	27	23	30	25	21	27	23	19	17
10	48	36	28	23	45	34	27	22	31	25	21	28	23	19	25	21	18	16

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	2.2
10°-20°	348.4	6.3
20°-30°	518.1	9.3
30°-40°	613.7	11.1
40°-50°	634.5	11.4
50°-60°	584.5	10.5
60°-70°	472.5	8.5
70°-80°	316.4	5.7
80°-90°	165.3	3.0
90°-100°	128.8	2.3
100°-110°	176.5	3.2
110°-120°	229.4	4.1
120°-130°	267.9	4.8
130°-140°	282.5	5.1
140°-150°	268.1	4.8
150°-160°	223.3	4.0
160°-170°	148.4	2.7
170°-180°	51.9	0.9
0°-30°	989.2	17.8
0°-40°	1602.9	28.9
0°-60°	2821.9	50.8
0°-90°	3776.1	68.0
90°-120°	534.7	9.6
90°-150°	1353.1	24.4
90°-180°	1777.0	32.0
0°-180°	5552.8	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°	44	79	126	156	166	43
105°	109	132	172	199	210	116
115°	192	204	236	258	266	190
125°	274	276	301	320	326	245
135°	352	354	363	378	384	271
145°	425	425	426	433	436	265
155°	484	484	485	486	484	223
165°	527	526	526	528	526	149
175°	548	546	546	548	546	52
180°	549	549	549	549	549	



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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	118.2
92.5°	28.7	37.6	46.5	55.3	64.3	74.1	84.7	95.4	106.0	116.7	123.6
95°	44.3	51.8	59.4	66.9	74.5	83.5	94.1	104.6	115.2	125.7	132.7
97.5°	61.2	67.9	74.6	81.2	87.9	96.5	107.2	117.7	128.3	138.9	145.4
100°	73.8	79.7	85.7	91.6	97.6	105.7	115.9	126.2	136.5	146.8	153.5
102.5°	87.5	93.3	99.2	105.1	110.9	118.6	128.1	137.5	146.9	156.4	163.1
105°	108.9	113.9	118.9	123.9	128.8	135.9	145.0	154.0	163.1	172.1	178.3
107.5°	132.6	137.0	141.3	145.6	149.9	156.4	164.9	173.5	182.1	190.7	196.5
110°	149.0	152.9	156.7	160.6	164.5	170.5	178.7	186.9	195.1	203.3	209.0



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CANDELA DISTRIBUTION (continued):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	166.8	169.8	172.8	175.7	178.6	184.2	192.2	200.3	208.3	216.3	221.6
115°	191.7	194.1	196.5	198.9	201.2	206.1	213.7	221.2	228.8	236.3	241.3
117.5°	216.8	218.3	219.7	221.2	222.7	227.0	234.1	241.2	248.4	255.5	260.3
120°	233.2	234.5	235.8	237.1	238.5	242.4	249.0	255.6	262.2	268.8	273.6
122.5°	250.0	250.5	251.1	251.7	252.2	255.8	262.3	268.8	275.3	281.8	286.3
125°	273.8	274.1	274.4	274.7	274.9	278.0	283.7	289.5	295.2	301.0	305.3
127.5°	298.1	298.2	298.2	298.3	298.3	300.7	305.5	310.2	315.0	319.7	323.8
130°	313.5	313.8	314.0	314.1	314.3	316.5	320.7	324.8	328.9	333.1	337.0
132.5°	327.9	328.7	329.3	330.1	330.7	332.6	335.6	338.7	341.7	344.7	348.6
135°	351.9	352.3	352.6	352.9	353.2	354.3	356.4	358.4	360.5	362.6	366.3
137.5°	374.7	374.9	375.3	375.6	375.9	376.6	377.9	379.0	380.2	381.4	384.8
140°	388.3	388.8	389.3	389.7	390.2	390.8	391.3	391.9	392.5	393.0	396.3
142.5°	403.0	403.2	403.3	403.5	403.7	404.0	404.4	404.8	405.2	405.7	408.4
145°	424.6	424.7	424.8	424.9	425.0	425.2	425.5	425.7	426.0	426.3	427.7
147.5°	443.4	443.6	443.7	443.9	444.2	444.4	444.6	444.9	445.1	445.4	446.0
150°	456.7	456.6	456.5	456.4	456.3	456.5	456.9	457.2	457.6	458.0	458.0
152.5°	467.6	467.8	467.9	468.0	468.2	468.3	468.4	468.6	468.7	468.9	469.1
155°	484.5	484.5	484.5	484.5	484.5	484.5	484.6	484.7	484.7	484.8	485.2
157.5°	499.5	499.3	499.1	498.9	498.6	498.6	498.7	498.8	498.9	499.0	499.4
160°	508.4	508.1	507.7	507.5	507.2	507.1	507.2	507.3	507.4	507.5	507.9
162.5°	516.2	516.0	515.9	515.6	515.4	515.3	515.3	515.3	515.4	515.4	515.9
165°	526.7	526.5	526.3	526.1	525.9	525.9	526.0	526.1	526.2	526.3	526.7
167.5°	535.6	535.3	534.9	534.5	534.1	534.0	534.0	534.0	534.0	534.0	534.5
170°	540.4	540.0	539.6	539.2	538.9	538.7	538.7	538.7	538.7	538.7	539.2
172.5°	543.8	543.5	543.1	542.7	542.3	542.2	542.2	542.2	542.2	542.2	542.7
175°	547.7	547.2	546.9	546.5	546.1	545.9	545.9	545.9	545.9	545.9	546.5
177.5°	549.6	549.3	549.0	548.7	548.4	548.2	548.2	548.1	548.0	547.9	548.4
180°	548.9	548.9	548.9	548.9	548.9	548.9	548.9	548.9	548.9	548.9	548.9



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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°	125.2	132.1	139.1	143.7	146.0	148.3	150.5	152.8
92.5°	130.4	137.4	144.3	148.8	151.0	153.2	155.4	157.6
95°	139.6	146.5	153.4	157.9	160.0	162.2	164.4	166.5
97.5°	152.0	158.6	165.1	169.5	171.4	173.5	175.6	177.6
100°	160.4	167.2	174.0	178.3	180.2	182.1	184.0	185.9
102.5°	169.7	176.3	182.9	187.3	189.3	191.1	193.1	195.1
105°	184.5	190.8	197.0	201.2	203.5	205.8	208.0	210.3
107.5°	202.5	208.3	214.2	218.0	219.7	221.5	223.2	225.0
110°	214.6	220.3	225.9	229.7	231.6	233.5	235.4	237.2



TEST NUMBER: P333433-830

CATALOG NUMBER: S125DIW-S1090D470U830-4F0-1E-UDD-D1

CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
112.5°	226.9	232.1	237.4	241.0	242.8	244.6	246.5	248.3
115°	246.3	251.3	256.3	259.6	261.2	262.8	264.4	266.0
117.5°	265.2	270.1	275.0	278.2	279.7	281.3	282.9	284.4
120°	278.4	283.2	288.0	291.2	292.5	293.8	295.1	296.4
122.5°	290.9	295.4	299.9	302.8	304.3	305.6	307.0	308.4
125°	309.6	314.0	318.3	321.1	322.4	323.8	325.1	326.4
127.5°	327.9	332.0	336.1	338.8	340.3	341.8	343.2	344.7
130°	340.8	344.7	348.6	351.1	352.3	353.5	354.8	356.0
132.5°	352.4	356.3	360.1	362.6	363.4	364.4	365.3	366.3
135°	369.9	373.6	377.3	379.7	380.7	381.7	382.8	383.8
137.5°	388.2	391.7	395.2	397.2	397.8	398.5	399.2	399.8
140°	399.6	402.9	406.2	408.2	408.9	409.5	410.2	410.8
142.5°	411.2	414.0	416.8	418.5	419.1	419.8	420.5	421.1
145°	429.1	430.6	432.0	433.1	433.9	434.8	435.6	436.5
147.5°	446.7	447.3	448.0	448.3	448.2	448.0	447.9	447.8
150°	458.0	458.0	458.0	458.0	458.1	458.2	458.3	458.4
152.5°	469.4	469.6	469.8	469.8	469.5	469.2	468.9	468.6
155°	485.6	486.0	486.4	486.4	485.9	485.4	484.9	484.5
157.5°	499.7	500.1	500.5	500.4	499.7	499.1	498.5	497.9
160°	508.3	508.7	509.1	509.0	508.5	508.0	507.6	507.1
162.5°	516.3	516.7	517.2	517.2	516.6	516.0	515.5	514.9
165°	527.1	527.4	527.8	527.7	527.2	526.6	526.0	525.5
167.5°	535.1	535.6	536.2	536.2	535.6	535.0	534.4	533.9
170°	539.8	540.4	541.0	540.9	540.3	539.6	538.9	538.3
172.5°	543.3	543.8	544.4	544.4	543.8	543.2	542.6	542.1
175°	547.1	547.7	548.3	548.2	547.5	546.9	546.2	545.5
177.5°	548.8	549.3	549.8	549.7	549.2	548.7	548.1	547.6
180°	548.9	548.9	548.9	548.9	548.9	548.9	548.9	548.9

(END OF REPORT)