

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: P333433-940

Luminaire Tested: **S125DIW-S1090D470U940-4F0-1E-UDD-D1**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P333433-940
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-S1090D470U940-4F0-1E-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: 5253.4 lumens
Efficiency: N/A
Efficacy: 113.7 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

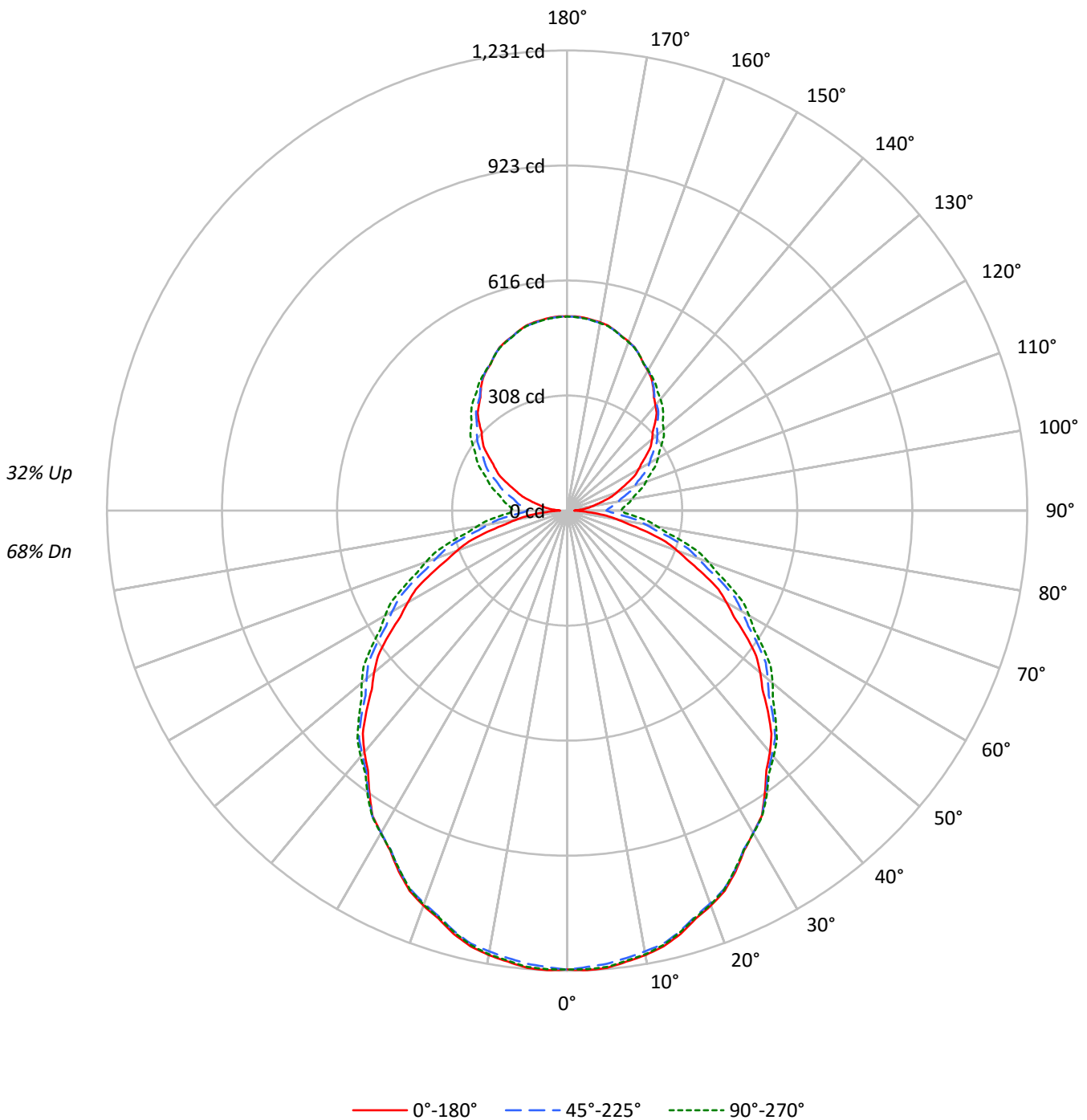
Input Watts (W): 46.2
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	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°	7930	7930	7930
5°	7946	7783	7808
10°	7889	7644	7633
15°	7796	7478	7410
20°	7670	7273	7188
25°	7518	7053	6912
30°	7336	6810	6664
35°	7165	6588	6435
40°	6992	6353	6205
45°	6796	6152	6001
50°	6609	5935	5821
55°	6384	5729	5609
60°	6137	5495	5392
65°	5882	5250	5150
70°	5590	4914	4900
75°	5128	4592	4592
80°	4524	4201	4257
85°	3962	3938	4152



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	116.1	2.2
10°-20°	329.6	6.3
20°-30°	490.2	9.3
30°-40°	580.6	11.1
40°-50°	600.3	11.4
50°-60°	553.0	10.5
60°-70°	447.0	8.5
70°-80°	299.4	5.7
80°-90°	156.4	3.0
90°-100°	121.9	2.3
100°-110°	167.0	3.2
110°-120°	217.0	4.1
120°-130°	253.4	4.8
130°-140°	267.2	5.1
140°-150°	253.6	4.8
150°-160°	211.2	4.0
160°-170°	140.4	2.7
170°-180°	49.1	0.9
0°-30°	935.9	17.8
0°-40°	1516.5	28.9
0°-60°	2669.7	50.8
0°-90°	3572.5	68.0
90°-120°	505.9	9.6
90°-150°	1280.1	24.4
90°-180°	1681.0	32.0
0°-180°	5253.4	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1228	1228	1228	1228	1228	
5°	1228	1225	1217	1226	1226	116
15°	1172	1173	1165	1172	1168	330
25°	1065	1068	1062	1066	1060	490
35°	922	930	927	930	930	577
45°	760	772	779	787	788	586
55°	584	603	622	635	640	522
65°	402	430	459	476	482	399
75°	222	253	291	314	321	235
85°	66	106	148	174	184	70
90°	20	62	105	134	144	14
95°	42	75	119	147	158	40
105°	103	125	163	188	199	110
115°	181	193	224	244	252	179
125°	259	262	285	302	309	232
135°	333	335	343	358	363	257
145°	402	402	403	409	413	251
155°	458	458	459	460	458	211
165°	498	498	498	499	497	141
175°	518	517	516	519	516	49
180°	519	519	519	519	519	



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CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	1227.9	1227.9	1227.9	1227.9	1227.9	1227.9	1227.9	1227.9	1227.9	1227.9	1227.9
2.5°	1230.7	1230.3	1229.8	1229.5	1229.0	1228.1	1226.5	1225.0	1223.6	1222.1	1223.6
5°	1227.9	1227.4	1226.8	1226.3	1225.7	1224.5	1222.6	1220.8	1218.9	1217.0	1219.1
7.5°	1217.0	1216.8	1216.6	1216.4	1216.2	1215.1	1213.2	1211.2	1209.3	1207.4	1209.2
10°	1207.4	1207.4	1207.4	1207.4	1207.4	1206.3	1204.2	1202.0	1199.9	1197.7	1199.6
12.5°	1193.9	1194.1	1194.4	1194.5	1194.8	1194.0	1192.3	1190.6	1188.9	1187.1	1188.7
15°	1172.5	1172.8	1173.0	1173.3	1173.6	1172.8	1170.9	1169.0	1167.2	1165.3	1166.9
17.5°	1144.5	1145.0	1145.6	1146.1	1146.7	1146.0	1144.2	1142.3	1140.4	1138.5	1139.8
20°	1124.4	1124.9	1125.4	1126.0	1126.5	1125.8	1123.9	1122.0	1120.2	1118.3	1119.1
22.5°	1101.2	1102.2	1103.1	1104.1	1105.1	1104.5	1102.4	1100.4	1098.2	1096.2	1097.2
25°	1065.3	1066.1	1066.9	1067.7	1068.5	1068.2	1066.6	1065.0	1063.4	1061.8	1062.8
27.5°	1025.4	1026.5	1027.7	1028.9	1030.1	1029.7	1028.0	1026.1	1024.3	1022.5	1023.2
30°	995.5	997.1	998.7	1000.3	1001.9	1001.9	1000.3	998.7	997.1	995.5	996.0
32.5°	968.6	969.9	971.3	972.8	974.1	974.2	973.0	971.9	970.7	969.6	970.1
35°	922.1	924.0	925.9	927.7	929.6	930.1	929.3	928.5	927.7	926.9	927.7
37.5°	875.7	877.4	879.0	880.7	882.4	883.2	883.0	882.7	882.4	882.2	883.2
40°	843.8	846.0	848.1	850.2	852.4	853.4	853.1	852.8	852.6	852.3	853.4
42.5°	809.1	812.0	814.8	817.5	820.3	822.0	822.6	823.1	823.8	824.4	825.6
45°	759.6	762.5	765.4	768.4	771.3	773.5	774.8	776.1	777.5	778.8	780.7
47.5°	708.8	711.5	714.3	716.9	719.7	722.2	724.5	726.8	729.2	731.4	734.1
50°	674.1	677.1	680.0	683.0	685.9	688.8	691.8	694.7	697.7	700.6	703.6
52.5°	637.5	641.1	644.7	648.3	651.8	655.4	659.1	662.6	666.2	669.8	673.0
55°	583.8	588.1	592.4	596.6	600.9	605.2	609.5	613.8	618.0	622.3	625.3
57.5°	529.0	534.0	539.2	544.4	549.5	554.6	559.5	564.4	569.3	574.2	577.6
60°	492.3	497.7	503.0	508.4	513.7	519.1	524.4	529.8	535.1	540.5	544.5
62.5°	456.7	462.1	467.4	472.8	478.1	483.7	489.5	495.3	501.1	506.8	511.2
65°	402.1	408.2	414.4	420.5	426.7	432.9	439.3	445.8	452.2	458.6	462.6
67.5°	350.5	356.5	362.4	368.4	374.3	380.5	387.1	393.6	400.1	406.6	411.5
70°	313.0	319.1	325.3	331.4	337.6	344.1	351.1	358.0	365.0	371.9	377.0
72.5°	276.4	282.8	289.1	295.5	301.8	308.8	316.5	324.0	331.6	339.2	344.7
75°	221.5	228.5	235.4	242.4	249.3	257.1	265.6	274.2	282.8	291.3	296.7
77.5°	168.8	176.8	184.9	192.9	200.9	209.0	217.2	225.5	233.7	241.9	247.8
80°	136.0	144.0	152.0	160.1	168.1	176.6	185.7	194.8	203.9	213.0	218.9
82.5°	106.2	114.6	123.1	131.5	140.0	148.8	158.2	167.5	176.8	186.1	191.8
85°	66.2	75.0	83.8	92.6	101.5	110.6	119.9	129.3	138.7	148.0	153.9
87.5°	37.6	46.4	55.0	63.8	72.5	81.4	90.6	99.9	109.1	118.3	124.6
90°	19.7	29.0	38.3	47.5	56.8	66.3	76.0	85.7	95.4	105.1	111.8
92.5°	27.1	35.6	44.0	52.3	60.8	70.1	80.2	90.2	100.3	110.4	116.9
95°	41.9	49.0	56.2	63.3	70.4	79.0	89.0	99.0	109.0	119.0	125.6
97.5°	57.9	64.2	70.5	76.9	83.2	91.3	101.4	111.4	121.4	131.4	137.6
100°	69.8	75.4	81.1	86.7	92.3	100.0	109.7	119.4	129.1	138.8	145.3
102.5°	82.8	88.3	93.9	99.4	105.0	112.2	121.2	130.1	139.0	147.9	154.3
105°	103.0	107.7	112.4	117.2	121.9	128.6	137.1	145.7	154.3	162.8	168.7
107.5°	125.5	129.6	133.7	137.8	141.8	147.9	156.0	164.2	172.3	180.4	185.9
110°	141.0	144.6	148.3	151.9	155.6	161.3	169.1	176.8	184.6	192.3	197.7



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CANDELA DISTRIBUTION (continued):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	157.8	160.6	163.5	166.2	169.0	174.2	181.8	189.5	197.1	204.6	209.6
115°	181.4	183.6	185.9	188.2	190.4	195.0	202.2	209.3	216.4	223.6	228.3
117.5°	205.1	206.5	207.9	209.3	210.7	214.7	221.5	228.2	235.0	241.7	246.3
120°	220.6	221.9	223.1	224.4	225.6	229.3	235.6	241.8	248.1	254.3	258.9
122.5°	236.5	237.0	237.6	238.1	238.6	242.0	248.2	254.3	260.5	266.6	270.9
125°	259.0	259.3	259.6	259.8	260.1	263.0	268.4	273.8	279.3	284.7	288.8
127.5°	282.0	282.1	282.1	282.2	282.2	284.5	289.0	293.5	298.0	302.5	306.3
130°	296.6	296.9	297.0	297.2	297.4	299.4	303.4	307.3	311.2	315.1	318.8
132.5°	310.2	310.9	311.6	312.3	312.9	314.7	317.5	320.4	323.2	326.1	329.8
135°	333.0	333.3	333.6	333.9	334.1	335.2	337.2	339.1	341.1	343.0	346.5
137.5°	354.5	354.7	355.1	355.3	355.6	356.3	357.5	358.6	359.7	360.8	364.1
140°	367.4	367.8	368.3	368.7	369.2	369.7	370.2	370.8	371.3	371.8	375.0
142.5°	381.3	381.5	381.6	381.7	381.9	382.2	382.6	383.0	383.3	383.8	386.4
145°	401.7	401.8	401.9	402.0	402.1	402.3	402.5	402.8	403.1	403.3	404.7
147.5°	419.5	419.6	419.8	420.0	420.3	420.4	420.6	420.9	421.1	421.3	422.0
150°	432.0	431.9	431.9	431.8	431.7	431.9	432.2	432.6	432.9	433.3	433.3
152.5°	442.4	442.6	442.6	442.7	442.9	443.0	443.2	443.4	443.4	443.6	443.8
155°	458.3	458.3	458.3	458.3	458.3	458.3	458.4	458.5	458.6	458.7	459.1
157.5°	472.5	472.3	472.2	472.0	471.7	471.7	471.8	471.9	472.0	472.1	472.4
160°	481.0	480.7	480.4	480.1	479.8	479.7	479.8	479.9	480.0	480.1	480.5
162.5°	488.4	488.2	488.0	487.8	487.6	487.5	487.5	487.5	487.6	487.6	488.0
165°	498.3	498.1	497.9	497.8	497.6	497.6	497.7	497.8	497.8	497.9	498.3
167.5°	506.8	506.4	506.0	505.7	505.3	505.2	505.2	505.2	505.2	505.2	505.7
170°	511.2	510.9	510.5	510.1	509.8	509.6	509.6	509.6	509.6	509.6	510.1
172.5°	514.5	514.2	513.8	513.4	513.1	512.9	512.9	512.9	512.9	512.9	513.4
175°	518.2	517.7	517.4	517.0	516.7	516.5	516.5	516.5	516.5	516.5	517.0
177.5°	520.0	519.7	519.4	519.2	518.8	518.6	518.6	518.5	518.4	518.4	518.8
180°	519.3	519.3	519.3	519.3	519.3	519.3	519.3	519.3	519.3	519.3	519.3



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CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
0°	1227.9	1227.9	1227.9	1227.9	1227.9	1227.9	1227.9	1227.9
2.5°	1225.0	1226.5	1228.1	1228.7	1228.5	1228.2	1228.1	1227.9
5°	1221.3	1223.4	1225.6	1226.5	1226.3	1226.0	1225.7	1225.5
7.5°	1211.1	1213.0	1214.9	1215.7	1215.4	1215.1	1214.9	1214.6
10°	1201.5	1203.4	1205.2	1206.0	1205.8	1205.5	1205.2	1205.0
12.5°	1190.1	1191.5	1192.9	1193.3	1192.7	1191.9	1191.2	1190.5
15°	1168.5	1170.1	1171.7	1172.0	1170.9	1169.8	1168.8	1167.7
17.5°	1141.0	1142.2	1143.4	1143.7	1143.1	1142.5	1141.8	1141.2
20°	1119.9	1120.7	1121.5	1122.0	1122.0	1122.0	1122.0	1122.0
22.5°	1098.2	1099.2	1100.2	1100.4	1099.7	1099.1	1098.5	1097.9
25°	1063.9	1065.0	1066.0	1065.9	1064.5	1063.2	1061.8	1060.5
27.5°	1024.0	1024.8	1025.5	1025.6	1025.1	1024.7	1024.1	1023.7
30°	996.6	997.1	997.6	997.8	997.6	997.3	997.0	996.8
32.5°	970.6	971.2	971.7	971.8	971.5	971.3	971.0	970.7
35°	928.5	929.3	930.1	930.5	930.5	930.5	930.5	930.5
37.5°	884.3	885.4	886.4	886.9	886.8	886.7	886.5	886.4
40°	854.4	855.5	856.6	857.4	857.9	858.4	859.0	859.5
42.5°	826.9	828.2	829.5	830.2	830.3	830.4	830.5	830.6
45°	782.6	784.4	786.3	787.4	787.6	787.9	788.2	788.5
47.5°	736.9	739.6	742.3	744.0	744.6	745.2	745.7	746.4
50°	706.5	709.4	712.4	714.3	715.1	715.9	716.7	717.5
52.5°	676.1	679.2	682.4	684.3	684.8	685.5	686.1	686.6
55°	628.2	631.2	634.1	636.1	637.2	638.3	639.4	640.4
57.5°	580.9	584.3	587.7	589.8	590.6	591.4	592.2	593.0
60°	548.5	552.5	556.5	558.9	559.7	560.5	561.3	562.1
62.5°	515.7	520.1	524.6	527.3	528.3	529.3	530.3	531.4
65°	466.6	470.6	474.7	477.2	478.3	479.4	480.5	481.5
67.5°	416.3	421.2	426.1	429.3	430.6	432.0	433.4	434.8
70°	382.1	387.2	392.3	395.7	397.3	398.9	400.5	402.1
72.5°	350.3	355.8	361.2	364.6	365.8	366.9	368.1	369.3
75°	302.0	307.4	312.7	316.0	317.4	318.7	320.0	321.4
77.5°	253.7	259.6	265.5	268.9	270.0	271.1	272.2	273.2
80°	224.8	230.7	236.6	240.0	241.1	242.2	243.3	244.3
82.5°	197.4	203.1	208.7	212.6	214.5	216.4	218.4	220.3
85°	159.8	165.7	171.6	175.6	177.7	179.9	182.0	184.1
87.5°	130.8	137.1	143.3	147.3	149.3	151.2	153.1	155.1
90°	118.4	125.0	131.6	136.0	138.1	140.3	142.4	144.5
92.5°	123.4	130.0	136.5	140.8	142.9	144.9	147.0	149.1
95°	132.1	138.6	145.1	149.4	151.4	153.5	155.5	157.6
97.5°	143.8	150.1	156.2	160.3	162.2	164.2	166.1	168.0
100°	151.8	158.2	164.6	168.7	170.5	172.3	174.1	175.8
102.5°	160.5	166.8	173.1	177.2	179.1	180.8	182.7	184.6
105°	174.6	180.5	186.4	190.4	192.5	194.7	196.8	198.9
107.5°	191.5	197.1	202.7	206.3	207.9	209.6	211.2	212.9
110°	203.0	208.4	213.7	217.3	219.1	220.9	222.7	224.4



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CATALOG NUMBER: S125DIW-S1090D470U940-4F0-1E-UDD-D1

CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
112.5°	214.6	219.6	224.6	228.0	229.7	231.4	233.2	234.9
115°	233.0	237.7	242.5	245.6	247.1	248.6	250.1	251.6
117.5°	250.9	255.6	260.2	263.2	264.7	266.2	267.6	269.0
120°	263.4	268.0	272.5	275.4	276.7	277.9	279.2	280.4
122.5°	275.2	279.5	283.7	286.5	287.8	289.1	290.4	291.8
125°	292.9	297.0	301.1	303.8	305.1	306.3	307.6	308.8
127.5°	310.2	314.1	318.0	320.6	321.9	323.3	324.7	326.1
130°	322.4	326.1	329.8	332.2	333.3	334.5	335.6	336.8
132.5°	333.4	337.1	340.7	343.0	343.8	344.7	345.6	346.5
135°	350.0	353.5	357.0	359.2	360.2	361.1	362.1	363.1
137.5°	367.3	370.6	373.9	375.8	376.4	377.0	377.6	378.3
140°	378.1	381.2	384.3	386.2	386.8	387.4	388.1	388.6
142.5°	389.1	391.6	394.3	395.9	396.5	397.2	397.8	398.4
145°	406.0	407.3	408.7	409.7	410.5	411.3	412.1	413.0
147.5°	422.6	423.2	423.8	424.1	424.0	423.8	423.7	423.7
150°	433.3	433.3	433.3	433.3	433.4	433.5	433.5	433.6
152.5°	444.1	444.3	444.4	444.4	444.2	443.9	443.6	443.4
155°	459.4	459.8	460.1	460.1	459.7	459.2	458.8	458.3
157.5°	472.8	473.1	473.5	473.4	472.8	472.2	471.6	471.0
160°	480.9	481.3	481.6	481.5	481.1	480.6	480.2	479.7
162.5°	488.5	488.8	489.3	489.3	488.7	488.2	487.7	487.1
165°	498.6	499.0	499.4	499.3	498.7	498.2	497.7	497.1
167.5°	506.2	506.8	507.3	507.3	506.7	506.1	505.6	505.1
170°	510.7	511.2	511.8	511.8	511.1	510.5	509.9	509.3
172.5°	514.0	514.5	515.1	515.1	514.4	513.9	513.4	512.8
175°	517.5	518.2	518.7	518.6	518.0	517.4	516.7	516.1
177.5°	519.2	519.7	520.1	520.0	519.6	519.1	518.5	518.1
180°	519.3	519.3	519.3	519.3	519.3	519.3	519.3	519.3

(END OF REPORT)