

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: P333561

Luminaire Tested: **S125RDIP-S850D590U835-4F0-1E-UDD-F4**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P333561
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1807-864-19,
Test Lab: INNOVATION CENTER
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: NEO-RAY
Catalog Number: S125RDIP-S850D590U835-4F0-1E-UDD-F4
Description: DEFINE 5 DIRECT-INDIRECT PENDANT LED LUMINAIRE
DOWNLIGHT 850 LUMENS PER FOOT, FLUSH SATIN WHITE DIFFUSER, REGRESSED
HOUSING
UPLIGHT 590 LUMENS PER FOOT, BATWING OPTIC
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 5371.8 lumens
Efficiency: N/A
Efficacy: 133.3 lumens/watt
Spacing Criteria (0/90/45): 1.2 / 1.11 / 1.25
Luminous Opening: Rectangular (W 0.42' x L: 4' x H: 0')
CIE Type: Semi-Direct

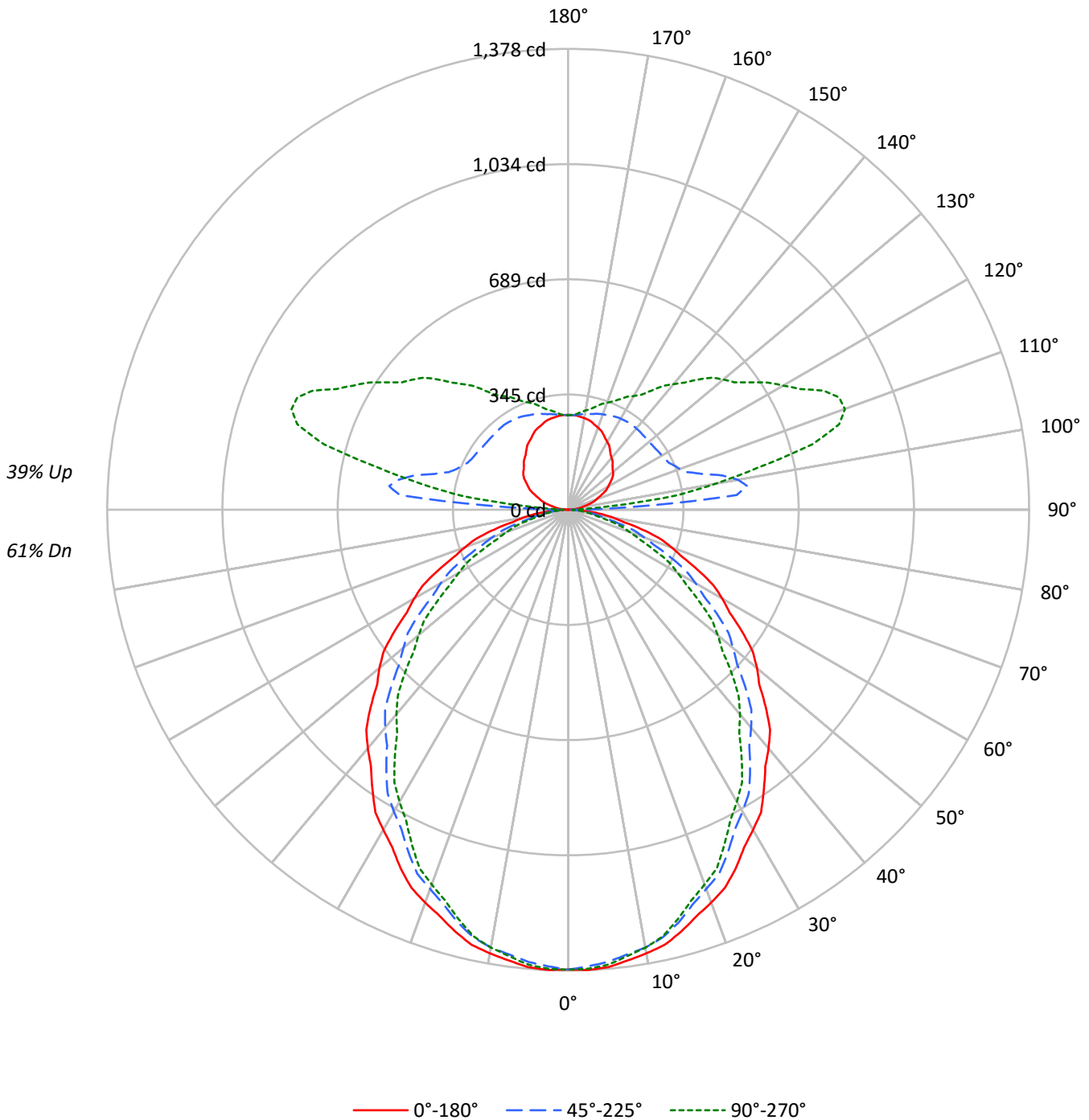
Input Watts (W): 40.3
Input Voltage (V): 120
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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
RW	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10
RCR																	
0	110	110	110	110	103	103	103	103	89	89	89	77	77	77	66	66	66
1	100	96	92	89	94	90	87	84	79	76	74	68	66	65	59	57	56
2	92	84	78	73	85	79	74	69	69	65	62	60	57	54	52	50	48
3	84	74	67	61	78	70	63	58	61	56	52	53	50	46	46	43	41
4	77	66	58	52	72	62	55	49	55	49	45	48	43	40	41	38	35
5	71	59	51	45	66	56	48	43	49	43	39	43	38	35	37	34	31
6	65	53	45	39	61	50	43	37	44	38	34	39	34	31	34	30	27
7	60	48	40	34	56	45	38	33	40	34	30	36	31	27	31	27	24
8	56	44	36	31	52	41	34	29	37	31	27	33	28	24	29	25	22
9	52	40	32	27	49	38	31	26	34	28	24	30	25	22	26	23	20
10	49	37	29	25	46	35	28	24	31	26	22	28	23	20	25	21	18

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	8881	8881	8881
5°	8901	8800	8854
10°	8834	8718	8718
15°	8729	8541	8471
20°	8594	8294	8194
25°	8437	8052	7874
30°	8240	7768	7520
35°	8041	7476	7123
40°	7854	7171	6734
45°	7626	6830	6308
50°	7398	6459	5865
55°	7133	6104	5391
60°	6868	5674	4883
65°	6554	5174	4300
70°	6197	4549	3707
75°	5702	3835	3084
80°	5021	3013	2589
85°	4231	2460	2312



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	129.3	2.4
10°-20°	361.3	6.7
20°-30°	524.0	9.8
30°-40°	597.2	11.1
40°-50°	582.1	10.8
50°-60°	490.0	9.1
60°-70°	343.5	6.4
70°-80°	176.6	3.3
80°-90°	46.2	0.9
90°-100°	205.1	3.8
100°-110°	440.9	8.2
110°-120°	413.8	7.7
120°-130°	335.3	6.2
130°-140°	269.1	5.0
140°-150°	203.1	3.8
150°-160°	142.9	2.7
160°-170°	84.3	1.6
170°-180°	27.4	0.5
0°-30°	1014.6	18.9
0°-40°	1611.8	30.0
0°-60°	2683.9	50.0
0°-90°	3250.1	60.5
90°-120°	1059.7	19.7
90°-150°	1867.2	34.8
90°-180°	2122.0	39.5
0°-180°	5371.8	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1375	1375	1375	1375	1375	
5°	1373	1368	1357	1367	1366	130
15°	1306	1298	1277	1276	1267	368
25°	1184	1167	1130	1117	1105	545
35°	1020	994	948	919	904	638
45°	835	803	748	708	691	644
55°	634	599	542	497	479	566
65°	429	392	339	298	281	425
75°	228	197	154	132	124	242
85°	57	39	33	32	31	64
90°	1	5	9	12	13	4
95°	19	56	505	229	134	20
105°	64	90	414	814	756	68
115°	115	139	332	716	842	113
125°	160	187	318	569	663	142
135°	187	225	316	477	551	145
145°	218	250	317	395	435	137
155°	249	268	309	349	364	114
165°	272	279	297	315	319	76
175°	282	282	285	288	287	27
180°	283	283	283	283	283	



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CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	1375.1	1375.1	1375.1	1375.1	1375.1	1375.1	1375.1	1375.1	1375.1	1375.1	1375.1
2.5°	1377.5	1377.0	1376.4	1375.9	1375.3	1374.1	1372.3	1370.4	1368.6	1366.7	1368.6
5°	1373.0	1372.1	1371.1	1370.2	1369.3	1367.6	1365.0	1362.5	1359.9	1357.4	1359.7
7.5°	1359.5	1358.6	1357.7	1356.8	1356.0	1354.0	1351.0	1347.9	1344.9	1341.8	1343.4
10°	1347.0	1346.3	1345.6	1344.9	1344.2	1342.3	1339.1	1335.8	1332.6	1329.4	1330.0
12.5°	1332.9	1332.0	1331.1	1330.3	1329.4	1326.8	1322.4	1318.1	1313.8	1309.4	1309.9
15°	1305.5	1304.1	1302.7	1301.3	1299.9	1296.8	1292.0	1287.1	1282.3	1277.4	1277.2
17.5°	1274.5	1272.4	1270.3	1268.2	1266.0	1261.9	1255.8	1249.7	1243.6	1237.5	1236.4
20°	1250.4	1248.1	1245.8	1243.5	1241.2	1236.3	1229.0	1221.6	1214.2	1206.8	1205.7
22.5°	1223.8	1221.5	1219.2	1216.9	1214.6	1209.6	1201.8	1194.1	1186.3	1178.6	1176.3
25°	1184.0	1180.5	1177.0	1173.6	1170.1	1164.1	1155.6	1147.0	1138.5	1130.0	1127.0
27.5°	1138.3	1134.1	1129.9	1125.7	1121.5	1114.8	1105.7	1096.5	1087.4	1078.2	1074.0
30°	1105.0	1100.6	1096.3	1091.9	1087.5	1080.4	1070.8	1061.1	1051.4	1041.7	1036.4
32.5°	1072.6	1067.5	1062.4	1057.3	1052.1	1044.6	1034.8	1024.9	1015.0	1005.1	999.3
35°	1019.9	1014.3	1008.8	1003.2	997.7	989.7	979.4	969.0	958.6	948.2	941.5
37.5°	968.1	961.4	954.7	947.9	941.2	932.5	921.8	911.0	900.3	889.6	881.6
40°	931.6	924.7	917.7	910.8	903.9	894.9	883.8	872.7	861.7	850.6	841.8
42.5°	893.4	886.3	879.2	872.0	864.9	855.7	844.2	832.8	821.3	809.9	801.5
45°	835.0	828.3	821.6	814.9	808.2	798.5	785.8	773.2	760.5	747.8	738.5
47.5°	774.6	767.5	760.4	753.4	746.3	736.4	723.6	710.8	698.0	685.2	675.7
50°	736.3	728.7	721.1	713.5	705.9	695.5	682.3	669.2	656.0	642.9	633.2
52.5°	694.8	687.0	679.2	671.4	663.6	653.5	641.1	628.7	616.2	603.8	593.4
55°	633.5	626.1	618.8	611.4	604.0	593.8	580.9	568.0	555.1	542.1	531.7
57.5°	571.6	563.7	555.8	547.9	540.1	529.9	517.4	504.9	492.5	480.0	469.9
60°	531.7	523.7	515.6	507.5	499.4	489.2	476.7	464.2	451.8	439.3	429.2
62.5°	489.4	481.7	474.0	466.2	458.5	448.4	435.7	423.1	410.4	397.8	388.4
65°	428.9	421.1	413.2	405.4	397.5	387.5	375.3	363.0	350.8	338.6	329.3
67.5°	368.9	361.0	353.2	345.4	337.5	327.7	316.0	304.3	292.6	280.8	272.4
70°	328.2	320.3	312.5	304.6	296.8	287.1	275.6	264.0	252.5	240.9	233.8
72.5°	288.3	280.6	273.0	265.3	257.7	248.4	237.6	226.8	216.0	205.2	198.6
75°	228.5	221.6	214.6	207.7	200.8	192.5	182.8	173.1	163.4	153.7	148.6
77.5°	169.1	163.5	158.0	152.5	146.9	140.3	132.5	124.8	117.0	109.3	105.7
80°	135.0	129.5	123.9	118.4	112.9	106.9	100.4	93.9	87.5	81.0	78.9
82.5°	101.8	96.8	91.8	86.8	81.8	77.1	72.7	68.3	63.8	59.4	58.4
85°	57.1	53.0	48.8	44.7	40.5	37.8	36.7	35.5	34.4	33.2	33.0
87.5°	19.2	18.0	17.0	15.9	14.9	14.3	14.3	14.3	14.2	14.3	14.4
90°	0.6	1.1	2.3	3.4	4.6	5.7	6.3	7.4	8.0	9.1	9.7
92.5°	7.0	8.4	13.2	20.3	30.1	46.8	77.9	130.2	186.9	183.9	148.9
95°	18.8	19.4	24.0	30.2	42.8	68.5	129.5	255.0	412.4	505.4	494.6
97.5°	31.3	31.9	35.1	41.4	52.7	71.2	111.6	203.5	368.3	539.7	625.8
100°	39.9	41.1	43.4	49.6	60.5	77.6	110.7	184.8	328.6	515.1	657.7
102.5°	49.5	50.2	52.0	58.8	68.7	85.3	114.8	177.1	298.4	471.7	638.5
105°	64.5	64.5	67.3	73.0	82.1	98.1	123.2	174.0	269.2	413.6	577.3
107.5°	79.1	80.2	82.9	87.6	97.1	111.5	135.8	179.2	256.9	373.5	514.8
110°	89.6	90.7	93.0	98.1	106.7	121.5	144.9	184.2	253.3	354.8	479.2



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CANDELA DISTRIBUTION (continued):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	100.1	101.2	103.0	108.2	116.7	131.1	153.6	190.6	253.3	343.9	452.7
115°	115.2	116.4	118.1	123.2	131.8	146.0	167.1	200.2	255.0	332.0	423.8
117.5°	128.9	130.6	132.5	137.6	147.3	161.1	181.1	211.2	258.7	326.2	406.6
120°	138.0	139.8	142.0	147.2	156.9	171.1	191.1	218.5	262.4	323.4	397.0
122.5°	147.6	148.9	150.7	155.8	166.5	180.7	200.7	226.7	265.6	321.2	388.8
125°	159.7	160.9	163.7	168.8	179.7	194.5	213.3	237.9	271.0	318.3	377.6
127.5°	169.2	170.9	174.6	181.1	192.6	207.4	225.5	248.1	277.0	316.9	367.4
130°	175.1	176.8	181.4	188.8	200.8	215.6	233.3	255.0	280.7	316.0	360.5
132.5°	179.7	181.9	187.3	195.7	208.1	222.9	240.6	260.9	284.8	316.0	355.0
135°	187.1	189.4	196.2	205.4	217.3	232.7	250.4	269.2	290.3	316.0	348.5
137.5°	196.5	198.2	204.6	213.7	225.4	241.3	257.4	275.4	295.5	316.7	342.7
140°	201.9	203.6	210.5	219.6	230.5	245.9	262.4	279.5	297.8	317.2	340.0
142.5°	208.3	209.6	216.0	225.1	235.5	250.0	265.6	281.8	299.1	317.6	337.7
145°	217.9	219.0	224.7	232.7	243.0	256.1	271.0	285.2	300.6	317.2	334.3
147.5°	227.9	228.6	233.5	240.9	249.8	261.4	274.4	287.3	301.2	315.7	330.7
150°	233.9	235.0	239.0	246.4	254.4	264.1	276.7	288.6	301.2	314.3	328.0
152.5°	240.3	240.9	244.5	251.0	258.5	267.3	278.9	289.5	300.7	312.5	324.8
155°	248.7	248.7	252.1	257.8	263.5	271.5	281.2	290.3	299.5	309.2	319.4
157.5°	256.2	256.1	258.9	263.8	268.8	274.8	283.2	290.9	298.0	305.7	314.4
160°	261.3	260.7	263.0	267.0	271.5	276.7	284.1	290.9	296.6	303.5	310.3
162.5°	265.4	264.8	267.1	270.6	274.3	278.5	285.0	290.5	295.3	300.7	306.7
165°	271.5	270.4	272.1	274.9	277.2	280.7	285.2	289.8	293.2	296.6	301.2
167.5°	275.6	275.1	276.1	277.7	279.3	281.4	285.2	288.4	290.0	292.6	295.8
170°	278.4	277.8	278.4	279.5	280.7	282.4	285.2	287.5	288.6	290.3	292.6
172.5°	280.2	279.2	279.7	280.9	281.6	282.4	284.8	286.6	286.8	287.6	289.4
175°	282.4	281.2	281.8	282.4	282.4	282.4	284.1	285.2	284.6	284.6	285.2
177.5°	283.4	282.5	282.5	282.9	282.5	282.5	283.4	283.8	282.9	282.9	283.4
180°	282.9	282.9	282.9	282.9	282.9	282.9	282.9	282.9	282.9	282.9	282.9



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CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
0°	1375.1	1375.1	1375.1	1375.1	1375.1	1375.1	1375.1	1375.1
2.5°	1370.4	1372.3	1374.1	1375.0	1374.8	1374.6	1374.4	1374.2
5°	1362.0	1364.3	1366.6	1367.6	1367.1	1366.6	1366.2	1365.7
7.5°	1345.1	1346.7	1348.3	1348.8	1348.3	1347.8	1347.3	1346.8
10°	1330.7	1331.4	1332.1	1332.1	1331.4	1330.7	1330.0	1329.4
12.5°	1310.4	1310.9	1311.4	1311.2	1310.1	1309.0	1308.0	1306.9
15°	1277.0	1276.7	1276.5	1275.4	1273.3	1271.2	1269.1	1267.0
17.5°	1235.2	1234.1	1232.9	1231.5	1229.8	1228.1	1226.4	1224.7
20°	1204.5	1203.3	1202.2	1200.6	1198.5	1196.4	1194.3	1192.3
22.5°	1174.0	1171.8	1169.5	1167.5	1165.8	1164.1	1162.4	1160.7
25°	1124.0	1121.0	1118.0	1115.2	1112.6	1110.1	1107.6	1105.0
27.5°	1069.8	1065.6	1061.4	1058.1	1055.7	1053.2	1050.8	1048.3
30°	1031.1	1025.8	1020.4	1016.8	1014.7	1012.6	1010.5	1008.4
32.5°	993.4	987.5	981.7	977.4	974.8	972.2	969.5	966.9
35°	934.8	928.1	921.4	916.5	913.2	910.0	906.8	903.5
37.5°	873.6	865.5	857.5	851.9	848.8	845.6	842.5	839.4
40°	833.0	824.3	815.5	809.7	807.0	804.2	801.4	798.7
42.5°	793.1	784.7	776.3	770.0	766.0	761.9	757.8	753.8
45°	729.3	720.1	710.8	704.5	701.0	697.6	694.1	690.6
47.5°	666.2	656.7	647.2	640.5	636.7	632.9	629.0	625.2
50°	623.5	613.8	604.1	597.5	594.1	590.6	587.1	583.7
52.5°	583.0	572.5	562.1	555.1	551.7	548.2	544.8	541.3
55°	521.4	511.0	500.6	493.5	489.9	486.2	482.5	478.8
57.5°	459.7	449.6	439.4	432.7	429.4	426.1	422.9	419.6
60°	419.0	408.8	398.7	391.9	388.4	385.0	381.5	378.0
62.5°	378.9	369.5	360.1	353.7	350.2	346.7	343.3	339.8
65°	320.1	310.9	301.6	295.3	291.8	288.4	284.9	281.4
67.5°	263.9	255.5	247.0	241.4	238.7	235.9	233.1	230.4
70°	226.6	219.5	212.3	207.4	204.6	201.8	199.1	196.3
72.5°	192.0	185.4	178.8	174.6	172.7	170.9	169.1	167.2
75°	143.6	138.5	133.4	130.1	128.4	126.8	125.2	123.6
77.5°	102.1	98.6	95.0	92.7	91.5	90.3	89.1	87.9
80°	76.9	74.8	72.7	71.4	71.0	70.5	70.0	69.6
82.5°	57.5	56.5	55.5	54.9	54.6	54.4	54.1	53.8
85°	32.8	32.5	32.3	32.1	31.8	31.6	31.4	31.2
87.5°	14.5	14.6	14.7	14.9	14.7	14.5	14.4	14.3
90°	10.3	10.8	11.4	12.5	12.5	12.5	13.1	13.1
92.5°	101.1	73.4	55.2	46.8	39.5	38.1	37.3	36.4
95°	410.1	323.4	253.3	205.4	164.9	147.7	143.2	134.1
97.5°	610.8	550.0	481.7	415.0	379.8	347.8	331.3	324.0
100°	701.6	673.7	614.9	555.6	516.2	475.2	454.1	444.9
102.5°	732.2	749.4	721.2	681.1	639.0	609.8	586.9	580.0
105°	714.2	792.3	817.4	811.1	792.9	774.1	762.7	755.8
107.5°	649.8	754.1	818.6	848.3	857.6	857.5	853.7	849.1
110°	602.4	710.8	791.2	839.7	865.3	876.2	880.2	880.2



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CATALOG NUMBER: S125RDIP-S850D590U835-4F0-1E-UDD-F4

CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
112.5°	565.0	667.9	749.2	806.4	843.9	862.5	872.4	876.5
115°	517.9	606.4	684.5	746.7	791.2	818.6	834.5	842.0
117.5°	487.6	563.8	631.1	688.2	732.7	761.0	776.8	781.4
120°	471.2	539.6	602.4	652.6	694.8	722.2	737.6	742.1
122.5°	458.9	522.3	578.2	625.2	662.8	687.9	703.3	707.4
125°	440.9	499.1	548.8	589.8	621.8	645.2	657.7	663.4
127.5°	422.7	477.0	523.3	561.8	590.7	611.4	623.2	625.8
130°	411.3	461.5	506.0	543.0	571.6	590.4	601.8	605.2
132.5°	399.9	446.9	487.3	523.0	551.5	570.3	580.8	584.7
135°	385.0	424.4	460.9	493.4	518.5	537.3	547.6	551.0
137.5°	372.5	404.3	434.7	462.3	484.7	501.9	511.3	515.1
140°	365.6	392.5	418.7	442.7	463.8	478.6	487.1	490.0
142.5°	359.7	382.4	405.0	425.8	443.7	456.2	464.3	466.7
145°	352.0	369.6	387.3	402.7	416.4	426.1	432.4	434.7
147.5°	344.7	359.0	372.6	384.2	395.1	402.8	406.5	407.5
150°	340.5	353.1	363.9	374.2	382.8	389.6	391.9	392.5
152.5°	336.0	347.2	357.1	365.1	372.3	377.7	380.0	380.6
155°	329.1	338.3	346.2	352.5	358.2	362.2	363.9	364.5
157.5°	322.3	329.8	336.0	340.9	345.3	348.6	350.2	350.1
160°	317.7	323.4	329.1	333.1	337.1	340.0	341.1	340.5
162.5°	312.7	318.0	322.7	326.3	329.4	331.8	332.0	331.9
165°	305.7	309.7	313.2	316.0	318.3	319.4	319.4	319.4
167.5°	299.1	301.8	304.4	306.4	307.6	308.6	308.1	308.0
170°	295.5	297.2	298.9	300.0	301.2	301.8	301.8	301.2
172.5°	291.4	293.1	294.3	295.0	295.3	296.3	295.4	294.8
175°	286.9	286.9	288.1	288.1	288.1	288.6	287.5	286.9
177.5°	283.8	284.3	284.3	284.3	283.8	284.3	282.9	282.9
180°	282.9	282.9	282.9	282.9	282.9	282.9	282.9	282.9

(END OF REPORT)