

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: P333555-840

Luminaire Tested: **S125RDIP-S850D365U840-4F0-1E-UDD-F4**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P333555-840
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-S850D365U840-4F0-1E-UDD-F4
Description: DEFINE 5 DIRECT-INDIRECT PENDANT LED LUMINAIRE
DOWNLIGHT 850 LUMENS PER FOOT, FLUSH SATIN WHITE DIFFUSER, REGRESSED
HOUSING
UPLIGHT 365 LUMENS PER FOOT, BATWING OPTIC
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 4609.0 lumens
Efficiency: N/A
Efficacy: 131.7 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

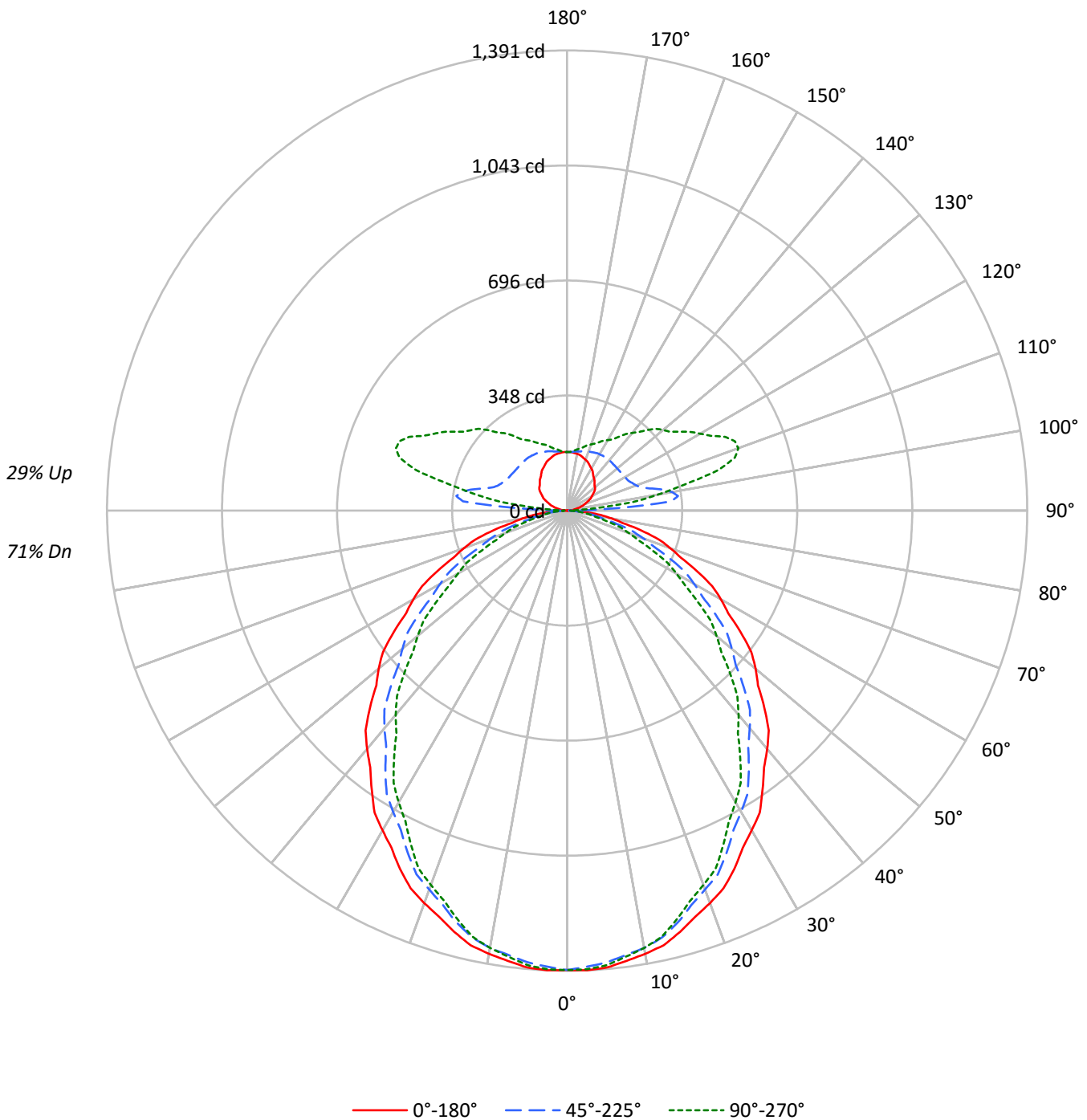
Input Watts (W): 35
Input Voltage (V): 120
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	112	112	112	112	106	106	106	106	95	95	95	85	85	85	76	76	76	71
1	103	99	95	91	97	93	90	87	84	81	79	75	73	72	67	66	65	61
2	94	86	80	75	89	82	77	72	74	70	66	67	63	60	60	57	55	51
3	86	76	69	63	81	73	66	60	66	60	56	59	55	51	53	50	47	44
4	79	68	60	54	74	65	57	52	59	53	48	53	48	44	48	44	41	38
5	73	61	52	46	68	58	50	45	53	46	42	48	43	39	43	39	36	33
6	67	55	46	40	63	52	45	39	48	41	37	43	38	34	39	35	32	29
7	62	50	41	36	59	47	40	35	43	37	32	39	34	30	36	32	28	26
8	58	45	37	32	55	43	36	31	40	33	29	36	31	27	33	29	25	23
9	54	41	34	29	51	40	33	28	36	30	26	33	28	25	31	26	23	21
10	51	38	31	26	48	37	30	25	34	28	24	31	26	22	28	24	21	19

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	8969	8969	8969
5°	8989	8887	8941
10°	8921	8804	8804
15°	8815	8625	8555
20°	8678	8376	8276
25°	8521	8131	7952
30°	8322	7845	7594
35°	8121	7550	7194
40°	7932	7242	6800
45°	7701	6898	6370
50°	7471	6523	5923
55°	7203	6164	5444
60°	6935	5730	4930
65°	6619	5225	4343
70°	6258	4594	3743
75°	5759	3873	3114
80°	5069	3042	2615
85°	4276	2482	2334



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	130.6	2.8
10°-20°	364.9	7.9
20°-30°	529.2	11.5
30°-40°	603.1	13.1
40°-50°	587.8	12.8
50°-60°	494.8	10.7
60°-70°	346.9	7.5
70°-80°	178.3	3.9
80°-90°	46.0	1.0
90°-100°	128.3	2.8
100°-110°	275.8	6.0
110°-120°	258.9	5.6
120°-130°	209.8	4.6
130°-140°	168.4	3.7
140°-150°	127.0	2.8
150°-160°	89.4	1.9
160°-170°	52.7	1.1
170°-180°	17.1	0.4
0°-30°	1024.6	22.2
0°-40°	1627.7	35.3
0°-60°	2710.4	58.8
0°-90°	3281.5	71.2
90°-120°	663.0	14.4
90°-150°	1168.2	25.3
90°-180°	1328.0	28.8
0°-180°	4609.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1389	1389	1389	1389	1389	
5°	1386	1382	1371	1381	1379	131
15°	1318	1311	1290	1289	1280	371
25°	1196	1179	1141	1128	1116	550
35°	1030	1004	958	928	912	645
45°	843	811	755	715	697	650
55°	640	605	547	502	484	572
65°	433	396	342	301	284	429
75°	231	199	155	133	125	244
85°	58	40	34	32	32	65
90°	0	3	6	8	8	3
95°	12	35	316	143	84	13
105°	40	56	259	510	473	43
115°	72	87	208	448	527	71
125°	100	117	199	356	415	89
135°	117	141	198	299	345	91
145°	136	156	198	247	272	85
155°	156	167	194	219	228	72
165°	170	175	186	197	200	48
175°	177	177	178	180	180	17
180°	177	177	177	177	177	



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CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	1388.7	1388.7	1388.7	1388.7	1388.7	1388.7	1388.7	1388.7	1388.7	1388.7	1388.7
2.5°	1391.1	1390.6	1390.0	1389.5	1388.9	1387.7	1385.8	1383.9	1382.1	1380.2	1382.1
5°	1386.5	1385.6	1384.6	1383.7	1382.8	1381.1	1378.5	1375.9	1373.3	1370.8	1373.1
7.5°	1372.9	1372.0	1371.1	1370.2	1369.4	1367.4	1364.3	1361.2	1358.2	1355.0	1356.7
10°	1360.3	1359.6	1358.9	1358.2	1357.5	1355.5	1352.3	1349.0	1345.7	1342.5	1343.1
12.5°	1346.0	1345.1	1344.2	1343.4	1342.5	1339.9	1335.4	1331.1	1326.8	1322.3	1322.8
15°	1318.4	1317.0	1315.6	1314.1	1312.7	1309.6	1304.7	1299.8	1294.9	1290.0	1289.8
17.5°	1287.1	1285.0	1282.8	1280.7	1278.5	1274.3	1268.2	1262.0	1255.9	1249.7	1248.6
20°	1262.7	1260.4	1258.1	1255.8	1253.4	1248.5	1241.1	1233.7	1226.2	1218.7	1217.6
22.5°	1235.9	1233.6	1231.2	1228.9	1226.6	1221.5	1213.7	1205.9	1198.0	1190.2	1187.9
25°	1195.7	1192.1	1188.6	1185.2	1181.6	1175.6	1167.0	1158.3	1149.7	1141.1	1138.1
27.5°	1149.5	1145.3	1141.0	1136.8	1132.6	1125.8	1116.6	1107.3	1098.1	1088.8	1084.6
30°	1115.9	1111.5	1107.1	1102.7	1098.2	1091.1	1081.4	1071.6	1061.8	1052.0	1046.6
32.5°	1083.2	1078.0	1072.9	1067.7	1062.5	1054.9	1045.0	1035.0	1025.0	1015.0	1009.2
35°	1030.0	1024.3	1018.8	1013.1	1007.5	999.5	989.1	978.6	968.1	957.6	950.8
37.5°	977.7	970.9	964.1	957.3	950.5	941.7	930.9	920.0	909.2	898.4	890.3
40°	940.8	933.8	926.8	919.8	912.8	903.7	892.5	881.3	870.2	859.0	850.1
42.5°	902.2	895.0	887.9	880.6	873.4	864.1	852.5	841.0	829.4	817.9	809.4
45°	843.2	836.5	829.7	822.9	816.2	806.4	793.6	780.8	768.0	755.2	745.8
47.5°	782.2	775.1	767.9	760.8	753.7	743.7	730.7	717.8	704.9	692.0	682.4
50°	743.6	735.9	728.2	720.5	712.9	702.4	689.0	675.8	662.5	649.2	639.4
52.5°	701.7	693.8	685.9	678.0	670.1	659.9	647.4	634.9	622.3	609.8	599.3
55°	639.7	632.3	624.9	617.4	610.0	599.7	586.6	573.6	560.6	547.4	536.9
57.5°	577.2	569.3	561.3	553.3	545.4	535.1	522.5	509.9	497.4	484.7	474.5
60°	536.9	528.9	520.7	512.5	504.3	494.0	481.4	468.8	456.3	443.6	433.4
62.5°	494.2	486.5	478.7	470.8	463.0	452.8	440.0	427.3	414.4	401.7	392.2
65°	433.1	425.3	417.3	409.4	401.4	391.3	379.0	366.6	354.3	341.9	332.5
67.5°	372.5	364.6	356.7	348.8	340.8	330.9	319.1	307.3	295.5	283.6	275.1
70°	331.4	323.5	315.6	307.6	299.7	289.9	278.3	266.6	255.0	243.3	236.1
72.5°	291.1	283.4	275.7	267.9	260.2	250.9	239.9	229.0	218.1	207.2	200.6
75°	230.8	223.8	216.7	209.7	202.8	194.4	184.6	174.8	165.0	155.2	150.1
77.5°	170.8	165.1	159.6	154.0	148.3	141.7	133.8	126.0	118.2	110.4	106.7
80°	136.3	130.8	125.1	119.6	114.0	108.0	101.4	94.8	88.4	81.8	79.7
82.5°	102.8	97.8	92.7	87.7	82.6	77.9	73.4	69.0	64.4	60.0	59.0
85°	57.7	53.5	49.3	45.1	40.9	38.2	37.1	35.9	34.7	33.5	33.3
87.5°	19.4	18.2	17.0	15.9	14.6	14.0	13.9	13.9	13.7	13.7	13.8
90°	0.4	0.7	1.4	2.1	2.8	3.5	3.9	4.6	4.9	5.8	6.1
92.5°	4.3	5.3	8.3	12.7	18.9	29.3	48.8	81.4	116.9	115.0	93.1
95°	11.8	12.1	14.9	18.9	26.8	42.8	81.0	159.6	258.0	316.2	309.4
97.5°	19.6	20.0	22.0	26.0	33.0	44.5	69.8	127.3	230.5	337.7	391.5
100°	24.9	25.7	27.2	31.0	37.9	48.6	69.3	115.6	205.6	322.2	411.5
102.5°	31.0	31.4	32.5	36.8	43.0	53.4	71.8	110.8	186.7	295.2	399.5
105°	40.3	40.3	42.1	45.6	51.4	61.4	77.1	108.9	168.4	258.7	361.2
107.5°	49.5	50.2	51.9	54.8	60.8	69.8	84.9	112.1	160.8	233.7	322.0
110°	56.0	56.8	58.2	61.4	66.8	76.0	90.7	115.3	158.4	222.0	299.8



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CANDELA DISTRIBUTION (continued):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	62.6	63.3	64.4	67.7	73.0	82.0	96.0	119.3	158.4	215.1	283.3
115°	72.1	72.8	73.9	77.1	82.4	91.4	104.6	125.2	159.6	207.7	265.2
117.5°	80.7	81.7	82.9	86.0	92.2	100.8	113.3	132.1	161.9	204.1	254.4
120°	86.3	87.5	88.9	92.1	98.2	107.0	119.6	136.7	164.2	202.4	248.4
122.5°	92.4	93.1	94.3	97.6	104.1	113.1	125.5	141.8	166.1	201.0	243.3
125°	100.0	100.7	102.4	105.6	112.4	121.7	133.5	148.9	169.6	199.1	236.3
127.5°	105.8	106.9	109.2	113.3	120.5	129.8	141.1	155.2	173.3	198.3	229.8
130°	109.6	110.7	113.5	118.2	125.6	134.9	145.9	159.6	175.6	197.7	225.6
132.5°	112.4	113.8	117.2	122.4	130.2	139.5	150.6	163.3	178.1	197.7	222.2
135°	117.0	118.5	122.8	128.5	136.0	145.6	156.6	168.4	181.7	197.7	218.0
137.5°	122.9	124.0	127.9	133.7	141.1	151.0	161.1	172.3	184.9	198.1	214.4
140°	126.3	127.4	131.7	137.4	144.2	153.8	164.2	174.9	186.3	198.4	212.7
142.5°	130.4	131.1	135.1	140.9	147.3	156.4	166.1	176.3	187.1	198.7	211.3
145°	136.3	137.0	140.6	145.6	152.1	160.3	169.6	178.4	188.0	198.4	209.1
147.5°	142.6	143.0	146.1	150.8	156.3	163.5	171.7	179.8	188.4	197.5	206.9
150°	146.3	147.0	149.6	154.2	159.2	165.2	173.1	180.6	188.4	196.6	205.2
152.5°	150.4	150.8	153.0	157.0	161.8	167.2	174.5	181.2	188.1	195.5	203.2
155°	155.6	155.6	157.7	161.3	164.9	169.9	175.9	181.7	187.3	193.5	199.9
157.5°	160.4	160.3	162.0	165.0	168.1	172.0	177.1	182.0	186.4	191.3	196.7
160°	163.5	163.1	164.5	167.0	169.9	173.1	177.7	182.0	185.6	189.9	194.2
162.5°	166.0	165.7	167.1	169.4	171.6	174.2	178.3	181.8	184.7	188.1	191.9
165°	169.9	169.2	170.3	172.0	173.5	175.6	178.4	181.3	183.5	185.6	188.4
167.5°	172.5	172.1	172.8	173.7	174.7	176.1	178.4	180.5	181.5	183.1	185.1
170°	174.2	173.8	174.2	174.9	175.6	176.6	178.4	179.9	180.6	181.7	183.1
172.5°	175.3	174.7	175.0	175.7	176.1	176.6	178.1	179.4	179.5	180.0	181.1
175°	176.6	175.9	176.3	176.6	176.6	176.6	177.7	178.4	178.1	178.1	178.4
177.5°	177.3	176.7	176.7	177.0	176.7	176.7	177.3	177.6	177.0	177.0	177.3
180°	177.0	177.0	177.0	177.0	177.0	177.0	177.0	177.0	177.0	177.0	177.0



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CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
0°	1388.7	1388.7	1388.7	1388.7	1388.7	1388.7	1388.7	1388.7
2.5°	1383.9	1385.8	1387.7	1388.6	1388.4	1388.2	1388.0	1387.8
5°	1375.4	1377.8	1380.1	1381.1	1380.6	1380.1	1379.7	1379.2
7.5°	1358.4	1360.0	1361.6	1362.1	1361.6	1361.1	1360.6	1360.1
10°	1343.8	1344.5	1345.2	1345.2	1344.5	1343.8	1343.1	1342.5
12.5°	1323.3	1323.8	1324.3	1324.1	1323.0	1321.9	1320.9	1319.8
15°	1289.6	1289.3	1289.1	1288.0	1285.9	1283.7	1281.6	1279.5
17.5°	1247.4	1246.3	1245.1	1243.6	1241.9	1240.2	1238.5	1236.8
20°	1216.4	1215.2	1214.1	1212.4	1210.3	1208.2	1206.1	1204.1
22.5°	1185.6	1183.4	1181.0	1179.0	1177.3	1175.6	1173.9	1172.2
25°	1135.1	1132.1	1129.0	1126.2	1123.6	1121.1	1118.5	1115.9
27.5°	1080.4	1076.1	1071.9	1068.5	1066.1	1063.6	1061.2	1058.6
30°	1041.3	1035.9	1030.5	1026.8	1024.7	1022.6	1020.5	1018.3
32.5°	1003.2	997.2	991.4	987.0	984.4	981.8	979.1	976.4
35°	944.0	937.3	930.5	925.5	922.2	919.0	915.7	912.4
37.5°	882.2	874.0	866.0	860.3	857.2	853.9	850.8	847.7
40°	841.2	832.4	823.5	817.7	815.0	812.1	809.3	806.6
42.5°	800.9	792.4	784.0	777.6	773.6	769.4	765.3	761.2
45°	736.5	727.2	717.8	711.4	707.9	704.5	700.9	697.4
47.5°	672.8	663.2	653.6	646.8	643.0	639.1	635.2	631.4
50°	629.7	619.9	610.1	603.4	600.0	596.4	592.9	589.5
52.5°	588.8	578.1	567.6	560.6	557.1	553.6	550.2	546.6
55°	526.5	516.0	505.5	498.4	494.7	491.0	487.3	483.5
57.5°	464.2	454.0	443.7	437.0	433.6	430.3	427.1	423.7
60°	423.1	412.8	402.6	395.8	392.2	388.8	385.3	381.7
62.5°	382.6	373.1	363.7	357.2	353.7	350.1	346.7	343.2
65°	323.3	314.0	304.6	298.2	294.7	291.2	287.7	284.2
67.5°	266.5	258.0	249.4	243.8	241.1	238.2	235.4	232.7
70°	228.8	221.7	214.4	209.4	206.6	203.8	201.1	198.2
72.5°	193.9	187.2	180.6	176.3	174.4	172.6	170.8	168.8
75°	145.0	139.9	134.7	131.4	129.7	128.1	126.4	124.8
77.5°	103.1	99.6	95.9	93.6	92.4	91.2	90.0	88.8
80°	77.7	75.5	73.4	72.1	71.7	71.2	70.7	70.3
82.5°	58.1	57.1	56.0	55.4	55.1	54.9	54.6	54.3
85°	33.1	32.8	32.6	32.4	32.1	31.9	31.7	31.5
87.5°	13.8	13.9	14.0	14.0	13.8	13.7	13.5	13.4
90°	6.5	6.8	7.2	7.9	7.9	7.9	8.2	8.2
92.5°	63.2	45.8	34.5	29.3	24.7	23.8	23.3	22.7
95°	256.6	202.4	158.4	128.5	103.1	92.4	89.6	83.9
97.5°	382.1	344.2	301.3	259.6	237.6	217.6	207.3	202.7
100°	439.0	421.5	384.8	347.6	323.0	297.3	284.1	278.4
102.5°	458.1	468.9	451.3	426.2	399.8	381.5	367.2	362.9
105°	446.9	495.7	511.4	507.6	496.0	484.3	477.2	472.9
107.5°	406.6	471.8	512.1	530.8	536.5	536.5	534.1	531.3
110°	376.9	444.7	495.0	525.3	541.4	548.2	550.7	550.7



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CATALOG NUMBER: S125RDIP-S850D365U840-4F0-1E-UDD-F4

CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
112.5°	353.5	417.9	468.8	504.5	528.0	539.7	545.8	548.5
115°	324.1	379.4	428.3	467.2	495.0	512.1	522.1	526.7
117.5°	305.1	352.7	394.9	430.6	458.4	476.2	486.0	488.9
120°	294.8	337.6	376.9	408.3	434.7	451.8	461.5	464.3
122.5°	287.1	326.8	361.7	391.1	414.8	430.4	440.1	442.6
125°	275.9	312.3	343.4	369.0	389.0	403.6	411.5	415.1
127.5°	264.5	298.4	327.4	351.4	369.6	382.5	389.9	391.5
130°	257.3	288.7	316.6	339.8	357.6	369.4	376.6	378.7
132.5°	250.1	279.6	304.9	327.2	345.1	356.8	363.3	365.8
135°	241.0	265.5	288.4	308.7	324.5	336.2	342.6	344.8
137.5°	233.1	253.0	272.0	289.2	303.3	314.0	319.9	322.2
140°	228.7	245.5	262.0	276.9	290.1	299.4	304.8	306.6
142.5°	225.1	239.2	253.4	266.4	277.6	285.5	290.5	292.1
145°	220.3	231.3	242.4	252.0	260.5	266.6	270.5	272.0
147.5°	215.6	224.6	233.2	240.4	247.2	252.1	254.3	255.0
150°	213.1	221.0	227.7	234.1	239.4	243.8	245.2	245.5
152.5°	210.3	217.2	223.4	228.4	232.9	236.3	237.7	238.1
155°	205.9	211.7	216.6	220.6	224.1	226.6	227.7	228.0
157.5°	201.7	206.3	210.3	213.3	216.1	218.1	219.1	219.0
160°	198.8	202.4	205.9	208.4	211.0	212.7	213.4	213.1
162.5°	195.6	198.9	202.0	204.2	206.1	207.5	207.7	207.6
165°	191.3	193.8	195.9	197.7	199.1	199.9	199.9	199.9
167.5°	187.1	188.8	190.5	191.8	192.5	193.1	192.8	192.7
170°	184.9	185.9	187.0	187.7	188.4	188.8	188.8	188.4
172.5°	182.3	183.4	184.2	184.6	184.7	185.4	184.8	184.4
175°	179.6	179.6	180.3	180.3	180.3	180.6	179.9	179.6
177.5°	177.6	177.8	177.8	177.8	177.6	177.8	177.0	177.0
180°	177.0	177.0	177.0	177.0	177.0	177.0	177.0	177.0

(END OF REPORT)