

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: P333255-840

Luminaire Tested: **S125DIP-S1090D365U840-4F0-1E-UDD-D4**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P333255-840  
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: S125DIP-S1090D365U840-4F0-1E-UDD-D4  
Description: DEFINE 5 DIRECT-INDIRECT PENDANT LED LUMINAIRE  
DOWNLIGHT 1090 LUMENS PER FOOT, DROP SATIN WHITE DIFFUSER  
UPLIGHT 365 LUMENS PER FOOT, BATWING OPTIC  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 5635.4 lumens  
Efficiency: N/A  
Efficacy: 129.6 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

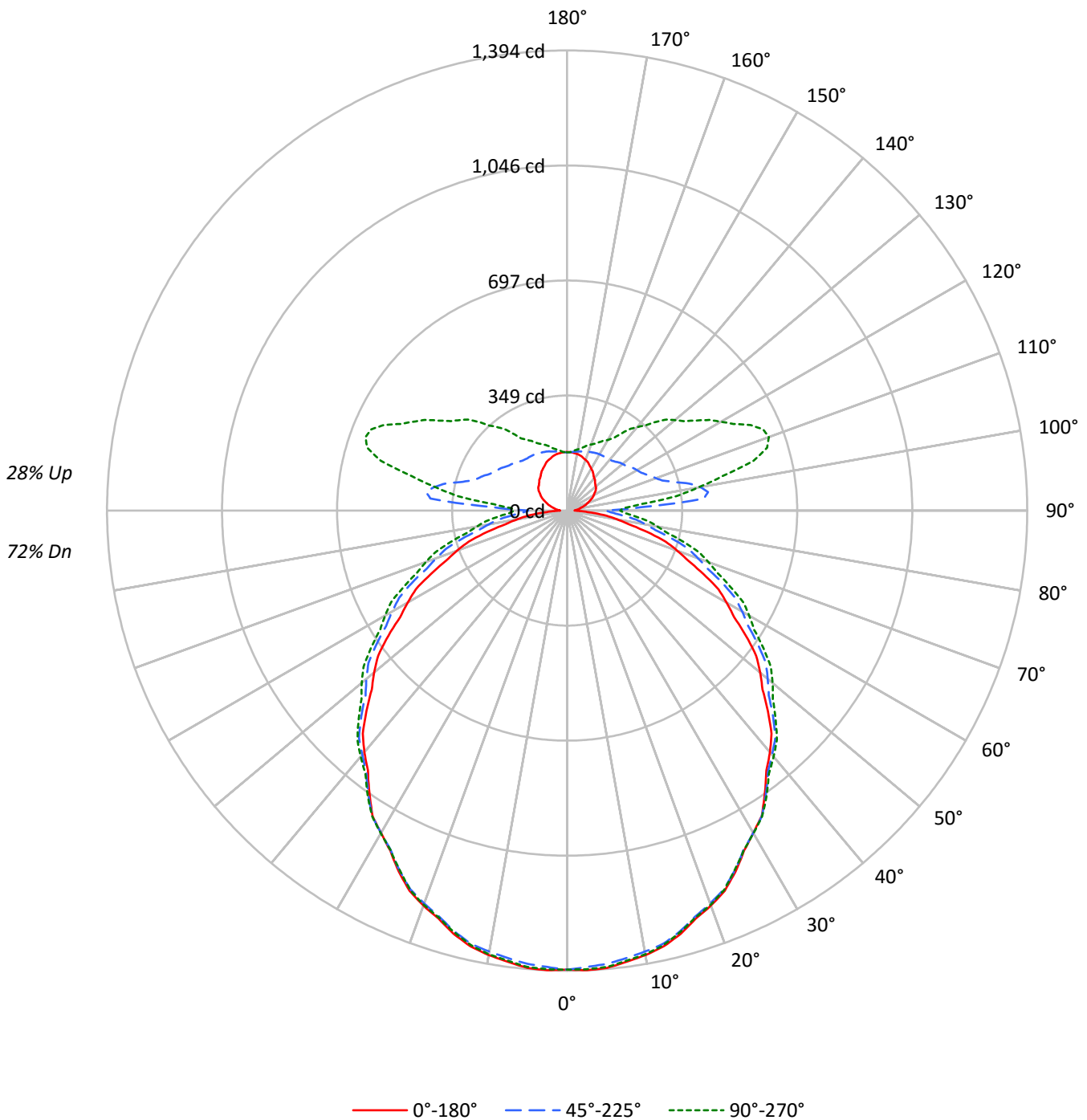
Input Watts (W): 43.5  
Input Voltage (V): 120  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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	112	112	112	112	106	106	106	106	95	95	95	85	85	85	76	76	76	72
1	102	97	92	88	96	92	88	84	82	79	76	74	71	69	66	64	62	58
2	92	84	77	71	87	80	73	68	71	67	62	64	60	57	57	54	52	48
3	84	73	65	59	79	70	62	57	63	57	52	56	52	48	50	47	43	40
4	77	65	56	50	72	62	54	48	56	49	44	50	45	41	45	41	37	34
5	70	58	49	43	66	55	47	41	50	43	38	45	39	35	40	36	32	29
6	65	52	43	37	61	49	41	36	45	38	33	41	35	31	36	32	28	26
7	60	47	38	32	57	45	37	31	41	34	29	37	31	27	33	29	25	23
8	56	43	34	29	53	41	33	28	37	31	26	34	28	24	31	26	22	20
9	52	39	31	26	49	37	30	25	34	28	23	31	26	22	28	24	20	18
10	49	36	28	23	46	34	27	22	31	25	21	29	23	20	26	22	18	17

**AVERAGE LUMINANCE (cd/sqm):**

	0°	45°	90°
0°	8981	8981	8981
5°	8999	8815	8843
10°	8935	8658	8644
15°	8829	8469	8392
20°	8685	8236	8140
25°	8515	7987	7828
30°	8308	7712	7547
35°	8115	7461	7288
40°	7918	7195	7027
45°	7696	6968	6796
50°	7485	6722	6592
55°	7230	6489	6352
60°	6950	6223	6107
65°	6660	5946	5832
70°	6332	5566	5549
75°	5809	5201	5201
80°	5122	4760	4822
85°	4483	4460	4702



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	131.5	2.3
10°-20°	373.3	6.6
20°-30°	555.1	9.9
30°-40°	657.5	11.7
40°-50°	679.8	12.1
50°-60°	626.3	11.1
60°-70°	506.2	9.0
70°-80°	339.0	6.0
80°-90°	176.8	3.1
90°-100°	227.0	4.0
100°-110°	348.6	6.2
110°-120°	307.6	5.5
120°-130°	237.5	4.2
130°-140°	180.5	3.2
140°-150°	129.5	2.3
150°-160°	89.4	1.6
160°-170°	52.7	0.9
170°-180°	17.1	0.3
0°-30°	1059.9	18.8
0°-40°	1717.4	30.5
0°-60°	3023.5	53.7
0°-90°	4045.5	71.8
90°-120°	883.2	15.7
90°-150°	1430.6	25.4
90°-180°	1590.0	28.2
0°-180°	5635.4	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1391	1391	1391	1391	1391	
5°	1391	1387	1378	1389	1388	132
15°	1328	1329	1320	1327	1322	374
25°	1206	1210	1202	1207	1201	555
35°	1044	1053	1050	1054	1054	653
45°	860	875	882	891	893	664
55°	661	683	705	719	725	591
65°	455	487	519	539	545	452
75°	251	287	330	356	364	266
85°	75	120	168	197	208	80
90°	22	69	118	149	161	15
95°	30	89	416	272	223	26
105°	53	92	334	611	585	55
115°	80	106	261	524	613	79
125°	105	123	231	408	475	93
135°	120	143	209	327	380	93
145°	138	156	198	254	284	86
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°	1390.6	1390.6	1390.6	1390.6	1390.6	1390.6	1390.6	1390.6	1390.6	1390.6	1390.6
2.5°	1393.8	1393.3	1392.8	1392.4	1391.9	1390.8	1389.1	1387.4	1385.7	1384.0	1385.7
5°	1390.6	1390.0	1389.4	1388.8	1388.2	1386.7	1384.6	1382.5	1380.4	1378.3	1380.7
7.5°	1378.3	1378.1	1377.8	1377.6	1377.4	1376.1	1373.9	1371.7	1369.6	1367.4	1369.5
10°	1367.4	1367.4	1367.4	1367.4	1367.4	1366.1	1363.7	1361.3	1358.9	1356.5	1358.6
12.5°	1352.1	1352.3	1352.6	1352.8	1353.1	1352.2	1350.3	1348.4	1346.5	1344.4	1346.2
15°	1327.9	1328.2	1328.5	1328.8	1329.1	1328.2	1326.1	1323.9	1321.8	1319.7	1321.5
17.5°	1296.2	1296.8	1297.4	1298.0	1298.6	1297.9	1295.8	1293.6	1291.5	1289.4	1290.8
20°	1273.3	1273.9	1274.6	1275.2	1275.8	1275.0	1272.8	1270.7	1268.6	1266.5	1267.4
22.5°	1247.1	1248.2	1249.3	1250.4	1251.5	1250.8	1248.5	1246.2	1243.7	1241.4	1242.5
25°	1206.5	1207.4	1208.3	1209.2	1210.1	1209.7	1207.9	1206.1	1204.3	1202.4	1203.7
27.5°	1161.2	1162.6	1163.9	1165.3	1166.6	1166.2	1164.2	1162.1	1160.0	1158.0	1158.8
30°	1127.4	1129.2	1131.0	1132.9	1134.7	1134.7	1132.9	1131.0	1129.2	1127.4	1128.0
32.5°	1096.9	1098.4	1100.0	1101.7	1103.2	1103.3	1102.0	1100.7	1099.3	1098.0	1098.6
35°	1044.3	1046.4	1048.5	1050.7	1052.8	1053.4	1052.5	1051.6	1050.7	1049.8	1050.7
37.5°	991.7	993.6	995.5	997.4	999.4	1000.3	1000.0	999.7	999.4	999.1	1000.3
40°	955.6	958.1	960.5	962.9	965.3	966.4	966.1	965.8	965.5	965.2	966.4
42.5°	916.4	919.6	922.7	925.8	929.0	930.9	931.6	932.2	932.9	933.6	935.0
45°	860.2	863.5	866.9	870.2	873.5	876.0	877.5	879.0	880.5	882.0	884.1
47.5°	802.7	805.8	808.9	811.9	815.1	817.9	820.5	823.1	825.8	828.3	831.4
50°	763.5	766.8	770.1	773.5	776.8	780.1	783.5	786.8	790.1	793.5	796.8
52.5°	722.0	726.1	730.1	734.2	738.2	742.3	746.4	750.4	754.5	758.5	762.1
55°	661.2	666.0	670.9	675.7	680.5	685.4	690.2	695.1	699.9	704.8	708.1
57.5°	599.1	604.8	610.7	616.5	622.3	628.0	633.6	639.1	644.7	650.3	654.1
60°	557.5	563.6	569.7	575.7	581.8	587.8	593.9	600.0	606.0	612.1	616.6
62.5°	517.3	523.3	529.4	535.4	541.5	547.8	554.3	560.9	567.4	573.9	579.0
65°	455.3	462.3	469.3	476.3	483.2	490.3	497.6	504.8	512.1	519.4	523.9
67.5°	397.0	403.7	410.4	417.2	423.8	430.9	438.4	445.8	453.1	460.5	466.1
70°	354.5	361.4	368.4	375.4	382.3	389.7	397.6	405.5	413.3	421.2	427.0
72.5°	313.1	320.2	327.4	334.7	341.8	349.7	358.4	367.0	375.6	384.2	390.4
75°	250.9	258.7	266.6	274.5	282.4	291.1	300.8	310.5	320.2	329.9	336.0
77.5°	191.2	200.3	209.3	218.4	227.5	236.7	246.0	255.4	264.7	274.0	280.6
80°	154.0	163.1	172.2	181.3	190.4	200.1	210.4	220.7	231.0	241.3	247.9
82.5°	120.3	129.8	139.4	149.0	158.5	168.5	179.2	189.7	200.3	210.8	217.2
85°	74.9	84.9	94.9	104.9	114.9	125.2	135.8	146.4	157.0	167.6	174.3
87.5°	42.6	52.4	62.2	72.0	81.9	92.0	102.4	112.8	123.2	133.6	140.7
90°	22.2	32.2	42.6	53.0	63.4	74.1	84.8	95.8	106.4	117.5	124.8
92.5°	24.0	33.8	45.8	59.3	74.3	94.5	124.5	167.7	213.8	222.5	207.3
95°	29.5	37.8	48.5	60.3	76.0	101.2	149.7	238.4	347.3	415.8	415.7
97.5°	35.6	43.1	52.2	63.2	77.5	97.5	132.7	200.2	313.2	430.4	490.6
100°	40.0	47.1	54.8	65.1	78.3	97.0	127.4	183.5	283.2	409.5	505.1
102.5°	44.8	51.2	58.2	68.3	80.4	98.5	126.3	174.8	260.1	378.1	488.5
105°	52.6	57.5	64.1	72.5	83.0	100.0	124.8	165.6	234.4	333.8	442.2
107.5°	60.1	64.9	70.8	77.9	87.9	103.3	127.2	163.1	220.5	302.2	396.5
110°	65.5	69.9	75.0	81.8	90.8	106.1	129.3	162.4	214.1	286.1	369.6



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**CANDELA DISTRIBUTION (continued):**

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	72.1	75.7	79.8	85.9	94.2	108.8	131.1	162.5	210.0	274.9	348.5
115°	80.3	83.1	86.3	91.6	99.1	113.0	134.1	162.7	204.8	260.8	323.8
117.5°	87.5	90.0	92.5	97.0	104.5	117.6	137.5	163.8	201.1	250.7	306.2
120°	93.2	95.1	97.5	101.6	108.6	121.5	140.9	165.0	199.4	244.6	295.8
122.5°	98.1	99.3	100.9	104.5	111.6	124.1	143.3	166.3	197.3	238.8	286.1
125°	105.4	105.8	107.2	110.2	116.6	128.9	146.6	168.0	194.8	230.6	272.5
127.5°	110.0	110.7	112.7	116.4	123.4	135.0	151.3	170.4	193.4	223.4	259.4
130°	113.6	114.4	116.9	121.3	128.6	139.8	155.0	172.9	193.2	219.5	251.7
132.5°	115.4	116.7	120.1	125.2	133.0	143.8	158.1	174.2	192.4	215.2	243.8
135°	119.8	120.9	124.9	130.3	137.5	148.0	161.2	175.1	190.5	208.6	232.9
137.5°	125.3	126.2	130.0	135.4	142.5	152.9	163.9	176.2	189.9	204.2	224.0
140°	127.7	128.8	133.1	138.8	145.5	155.3	166.0	177.0	188.7	201.2	218.7
142.5°	131.7	132.3	136.0	141.5	147.7	156.7	166.5	176.7	187.6	199.2	214.7
145°	137.7	138.1	141.4	146.0	152.2	160.3	169.6	178.4	188.0	198.4	210.7
147.5°	142.6	143.0	146.1	150.8	156.3	163.5	171.7	179.8	188.4	197.5	207.4
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°	1390.6	1390.6	1390.6	1390.6	1390.6	1390.6	1390.6	1390.6
2.5°	1387.4	1389.1	1390.8	1391.5	1391.3	1391.0	1390.8	1390.6
5°	1383.1	1385.5	1388.0	1389.1	1388.8	1388.5	1388.2	1387.9
7.5°	1371.6	1373.7	1375.8	1376.7	1376.4	1376.1	1375.8	1375.5
10°	1360.7	1362.8	1364.9	1365.8	1365.5	1365.2	1364.9	1364.6
12.5°	1347.8	1349.4	1351.0	1351.4	1350.7	1349.9	1349.1	1348.3
15°	1323.3	1325.1	1327.0	1327.3	1326.1	1324.8	1323.6	1322.4
17.5°	1292.2	1293.5	1294.9	1295.3	1294.5	1293.8	1293.1	1292.4
20°	1268.3	1269.2	1270.1	1270.6	1270.6	1270.6	1270.6	1270.6
22.5°	1243.7	1244.9	1246.0	1246.2	1245.5	1244.8	1244.1	1243.3
25°	1204.9	1206.1	1207.3	1207.1	1205.6	1204.1	1202.5	1201.0
27.5°	1159.6	1160.5	1161.3	1161.5	1160.9	1160.4	1159.8	1159.3
30°	1128.6	1129.2	1129.8	1130.0	1129.7	1129.4	1129.1	1128.8
32.5°	1099.2	1099.8	1100.4	1100.6	1100.2	1099.9	1099.6	1099.3
35°	1051.6	1052.5	1053.4	1053.8	1053.8	1053.8	1053.8	1053.8
37.5°	1001.5	1002.7	1003.9	1004.4	1004.3	1004.2	1004.0	1003.9
40°	967.7	968.9	970.1	971.0	971.6	972.2	972.8	973.4
42.5°	936.4	938.0	939.4	940.2	940.3	940.4	940.6	940.7
45°	886.3	888.4	890.5	891.7	892.0	892.3	892.6	892.9
47.5°	834.6	837.6	840.7	842.5	843.2	843.9	844.6	845.3
50°	800.1	803.4	806.8	808.9	809.8	810.7	811.6	812.5
52.5°	765.7	769.2	772.8	775.0	775.6	776.3	777.0	777.6
55°	711.4	714.8	718.1	720.4	721.6	722.9	724.1	725.3
57.5°	657.9	661.8	665.6	667.9	668.8	669.7	670.7	671.6
60°	621.2	625.7	630.3	633.0	633.9	634.8	635.7	636.6
62.5°	584.0	589.1	594.1	597.1	598.3	599.5	600.6	601.8
65°	528.5	533.0	537.6	540.5	541.7	542.9	544.1	545.3
67.5°	471.5	477.1	482.6	486.1	487.7	489.3	490.8	492.4
70°	432.7	438.5	444.2	448.1	449.9	451.7	453.5	455.3
72.5°	396.7	402.9	409.1	412.9	414.2	415.6	416.9	418.3
75°	342.0	348.1	354.2	357.9	359.4	360.9	362.4	364.0
77.5°	287.3	294.0	300.6	304.6	305.8	307.0	308.2	309.4
80°	254.6	261.3	267.9	271.9	273.1	274.3	275.5	276.7
82.5°	223.6	230.0	236.4	240.8	243.0	245.1	247.3	249.4
85°	181.0	187.6	194.3	198.8	201.3	203.7	206.1	208.5
87.5°	147.7	154.8	161.8	166.5	168.6	170.8	172.9	175.0
90°	132.2	139.5	146.8	152.1	154.2	156.3	158.8	160.9
92.5°	184.1	173.5	168.8	168.0	165.6	166.8	168.4	170.0
95°	369.5	321.8	284.7	259.0	235.8	227.2	226.5	222.9
97.5°	487.6	456.0	419.5	382.0	362.0	344.2	335.8	333.4
100°	539.0	527.9	497.5	464.4	441.6	417.7	406.4	402.4
102.5°	553.2	570.2	558.7	537.5	512.9	496.4	483.9	481.5
105°	533.9	588.9	610.7	610.9	601.5	591.9	586.8	584.7
107.5°	487.1	558.3	604.6	627.1	634.8	636.6	636.1	635.2
110°	452.5	526.0	582.1	616.4	634.6	643.5	648.1	650.3





TEST NUMBER: P333255-840

CATALOG NUMBER: S125DIP-S1090D365U840-4F0-1E-UDD-D4

**CANDELA DISTRIBUTION (continued):**

	55°	60°	65°	70°	75°	80°	85°	90°
112.5°	424.2	494.1	550.5	590.1	615.7	629.4	637.8	642.5
115°	388.1	448.9	503.2	545.8	575.4	594.4	606.2	612.7
117.5°	362.0	414.9	462.1	501.4	531.3	551.1	563.0	567.9
120°	347.4	395.4	439.8	474.6	502.9	521.8	533.3	538.0
122.5°	334.8	379.4	419.3	452.0	477.5	494.9	506.4	510.8
125°	316.9	358.2	394.0	422.9	444.4	460.6	470.0	475.0
127.5°	298.5	337.0	370.4	397.6	417.5	432.2	441.3	444.6
130°	287.6	323.3	355.4	381.4	400.8	414.0	422.7	426.4
132.5°	276.1	309.7	339.3	364.4	383.4	396.6	404.3	408.1
135°	259.7	288.2	315.1	338.1	355.4	368.6	376.6	380.2
137.5°	246.2	269.7	292.3	311.9	327.2	339.1	346.3	349.8
140°	238.1	258.2	278.0	295.3	309.7	320.2	326.8	329.7
142.5°	231.3	248.3	265.3	280.3	292.8	301.8	308.1	310.8
145°	223.3	235.8	248.4	259.4	269.1	276.5	281.6	284.3
147.5°	216.6	226.1	235.1	242.9	250.1	255.6	258.4	259.6
150°	213.1	221.0	227.7	234.3	239.9	244.5	246.2	246.9
152.5°	210.3	217.2	223.4	228.4	233.0	236.5	238.0	238.4
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)