

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: P333219

Luminaire Tested: **S125DIP-S850D590U835-4F0-1E-UDD-D4**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P333219
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-S850D590U835-4F0-1E-UDD-D4
Description: DEFINE 5 DIRECT-INDIRECT PENDANT LED LUMINAIRE
DOWNLIGHT 850 LUMENS PER FOOT, DROP SATIN WHITE DIFFUSER
UPLIGHT 590 LUMENS PER FOOT, BATWING OPTIC
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 5404.4 lumens
Efficiency: N/A
Efficacy: 134.1 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: General Diffuse

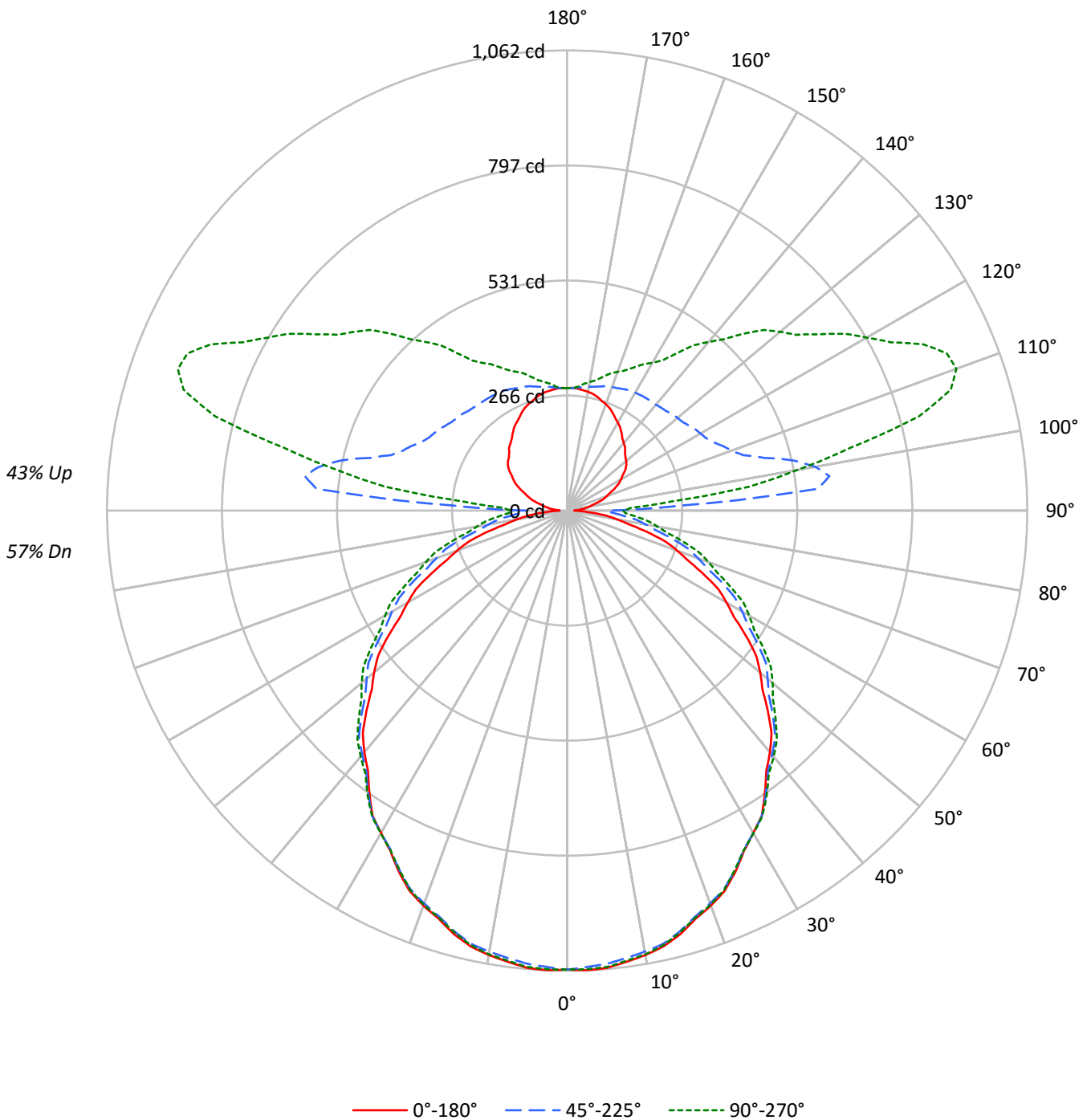
Input Watts (W): 40.3
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	50	30	10	50	30	10	0		
RCR																										
0	109	109	109	109	101	101	101	101	87	87	87	74	74	74	63	63	63	57								
1	99	94	90	86	91	87	84	80	75	72	70	64	62	60	54	53	51	46								
2	89	81	75	69	83	76	70	65	65	61	57	56	53	50	47	45	42	38								
3	81	71	64	57	75	67	60	54	57	52	48	49	45	42	41	38	36	32								
4	74	63	55	48	69	59	51	46	51	45	41	44	39	35	37	33	31	27								
5	68	56	48	41	63	52	45	39	45	39	35	39	34	31	33	29	27	23								
6	63	50	42	36	58	47	39	34	41	35	30	35	30	27	30	26	23	20								
7	58	45	37	31	54	42	35	30	37	31	27	32	27	24	27	24	21	18								
8	54	41	33	28	50	39	31	26	34	28	24	29	25	21	25	21	18	16								
9	50	38	30	25	47	35	28	23	31	25	21	27	22	19	23	19	17	14								
10	47	34	27	22	44	32	26	21	29	23	19	25	20	17	21	18	15	13								

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	6841	6841	6841
5°	6855	6715	6737
10°	6806	6595	6585
15°	6726	6452	6393
20°	6616	6274	6201
25°	6486	6084	5964
30°	6329	5876	5749
35°	6182	5684	5552
40°	6032	5481	5353
45°	5863	5308	5178
50°	5702	5120	5022
55°	5508	4943	4839
60°	5296	4741	4653
65°	5075	4530	4443
70°	4822	4240	4228
75°	4425	3962	3962
80°	3905	3625	3673
85°	3417	3398	3583



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	100.2	1.9
10°-20°	284.4	5.3
20°-30°	422.9	7.8
30°-40°	500.9	9.3
40°-50°	517.9	9.6
50°-60°	477.1	8.8
60°-70°	385.7	7.1
70°-80°	258.3	4.8
80°-90°	135.5	2.5
90°-100°	280.2	5.2
100°-110°	496.3	9.2
110°-120°	450.9	8.3
120°-130°	356.4	6.6
130°-140°	278.3	5.1
140°-150°	204.9	3.8
150°-160°	142.9	2.6
160°-170°	84.3	1.6
170°-180°	27.4	0.5
0°-30°	807.4	14.9
0°-40°	1308.3	24.2
0°-60°	2303.3	42.6
0°-90°	3082.8	57.0
90°-120°	1227.4	22.7
90°-150°	2067.0	38.2
90°-180°	2322.0	43.0
0°-180°	5404.4	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1059	1059	1059	1059	1059	
5°	1059	1057	1050	1058	1057	100
15°	1012	1012	1005	1011	1007	285
25°	919	922	916	920	915	423
35°	796	802	800	803	803	498
45°	655	666	672	679	680	506
55°	504	520	537	548	552	450
65°	347	371	396	411	415	344
75°	191	218	251	271	277	203
85°	57	92	128	150	159	61
90°	17	55	94	120	129	12
95°	32	97	581	327	240	31
105°	74	117	471	891	841	78
115°	122	154	372	774	907	120
125°	164	191	342	609	709	145
135°	189	227	324	498	578	147
145°	219	250	317	400	444	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°	1059.3	1059.3	1059.3	1059.3	1059.3	1059.3	1059.3	1059.3	1059.3	1059.3	1059.3
2.5°	1061.8	1061.5	1061.1	1060.7	1060.3	1059.5	1058.2	1056.9	1055.6	1054.3	1055.6
5°	1059.3	1058.9	1058.4	1057.9	1057.5	1056.4	1054.8	1053.2	1051.6	1050.0	1051.8
7.5°	1050.0	1049.8	1049.6	1049.4	1049.2	1048.3	1046.7	1045.0	1043.3	1041.7	1043.3
10°	1041.7	1041.7	1041.7	1041.7	1041.7	1040.8	1038.9	1037.1	1035.2	1033.4	1035.0
12.5°	1030.0	1030.2	1030.4	1030.6	1030.8	1030.1	1028.7	1027.2	1025.7	1024.2	1025.5
15°	1011.6	1011.8	1012.0	1012.2	1012.5	1011.8	1010.2	1008.6	1006.9	1005.3	1006.7
17.5°	987.5	987.9	988.4	988.8	989.3	988.7	987.1	985.5	983.9	982.3	983.3
20°	970.0	970.5	970.9	971.4	971.9	971.3	969.7	968.1	966.4	964.8	965.5
22.5°	950.1	950.9	951.7	952.6	953.4	952.9	951.1	949.3	947.5	945.7	946.6
25°	919.1	919.8	920.5	921.2	921.9	921.5	920.2	918.8	917.4	916.0	916.9
27.5°	884.6	885.7	886.7	887.7	888.7	888.4	886.9	885.3	883.7	882.2	882.8
30°	858.9	860.3	861.7	863.0	864.4	864.4	863.0	861.7	860.3	858.9	859.4
32.5°	835.6	836.8	838.0	839.2	840.4	840.5	839.5	838.5	837.5	836.5	836.9
35°	795.5	797.2	798.8	800.4	802.0	802.5	801.8	801.1	800.4	799.7	800.4
37.5°	755.4	756.9	758.4	759.9	761.4	762.0	761.7	761.5	761.3	761.1	762.0
40°	728.0	729.9	731.7	733.6	735.4	736.2	736.0	735.8	735.5	735.3	736.2
42.5°	698.1	700.5	702.9	705.3	707.7	709.2	709.7	710.2	710.7	711.2	712.3
45°	655.3	657.9	660.4	662.9	665.5	667.3	668.5	669.6	670.8	671.9	673.6
47.5°	611.5	613.9	616.2	618.6	620.9	623.1	625.1	627.1	629.0	631.0	633.4
50°	581.6	584.1	586.7	589.2	591.7	594.3	596.8	599.4	601.9	604.4	607.0
52.5°	550.0	553.1	556.2	559.3	562.4	565.5	568.6	571.7	574.8	577.9	580.6
55°	503.7	507.4	511.1	514.8	518.5	522.2	525.9	529.6	533.2	536.9	539.5
57.5°	456.3	460.8	465.2	469.6	474.1	478.4	482.7	486.9	491.1	495.4	498.3
60°	424.8	429.4	434.0	438.6	443.2	447.9	452.5	457.1	461.7	466.3	469.8
62.5°	394.0	398.6	403.3	407.9	412.5	417.3	422.3	427.3	432.2	437.2	441.1
65°	346.9	352.2	357.5	362.8	368.1	373.5	379.1	384.6	390.2	395.7	399.2
67.5°	302.4	307.6	312.7	317.8	322.9	328.3	333.9	339.6	345.2	350.8	355.0
70°	270.0	275.3	280.6	286.0	291.3	296.9	302.9	308.9	314.9	320.9	325.3
72.5°	238.5	243.9	249.4	254.9	260.4	266.4	273.0	279.6	286.1	292.7	297.4
75°	191.1	197.1	203.1	209.1	215.1	221.8	229.2	236.6	243.9	251.3	255.9
77.5°	145.6	152.5	159.5	166.4	173.3	180.3	187.4	194.5	201.6	208.8	213.8
80°	117.4	124.3	131.2	138.1	145.1	152.4	160.3	168.1	176.0	183.8	188.9
82.5°	91.6	98.9	106.2	113.5	120.8	128.4	136.5	144.5	152.5	160.6	165.5
85°	57.1	64.7	72.4	80.0	87.6	95.4	103.5	111.6	119.7	127.7	132.8
87.5°	32.5	40.0	47.6	55.2	62.9	70.7	78.7	86.7	94.7	102.8	108.2
90°	17.2	25.1	33.7	42.2	50.7	59.5	67.9	76.9	85.3	94.3	100.2
92.5°	21.9	30.2	41.9	55.8	72.4	96.5	135.7	195.9	260.7	265.7	235.8
95°	32.3	38.9	49.5	61.7	80.3	112.9	181.8	315.1	480.4	581.2	575.5
97.5°	43.5	49.6	58.2	69.9	86.6	111.5	159.5	259.0	431.3	610.4	701.2
100°	51.4	57.3	64.5	75.6	91.3	114.5	155.0	236.5	387.6	581.6	729.0
102.5°	60.1	65.3	71.6	82.8	97.2	119.7	156.3	225.8	354.4	534.9	706.3
105°	73.8	77.5	84.0	93.4	106.3	127.5	159.6	217.3	319.4	470.7	639.0
107.5°	87.2	91.4	97.3	105.1	117.7	137.0	168.0	218.1	302.4	425.7	571.5
110°	96.8	100.7	105.8	113.7	125.0	144.5	174.3	220.1	295.6	403.6	532.4



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CANDELA DISTRIBUTION (continued):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	107.3	110.7	114.7	122.1	132.8	151.5	180.2	223.6	292.5	389.3	502.4
115°	121.5	124.2	127.5	134.3	144.5	162.5	189.6	228.7	289.5	372.5	468.5
117.5°	134.1	136.9	139.8	146.0	156.7	173.9	199.5	235.3	288.6	361.7	446.0
120°	143.2	145.6	148.6	154.4	164.8	182.1	207.4	240.1	289.3	355.6	433.1
122.5°	152.0	153.6	155.7	161.2	172.1	189.1	214.2	245.3	289.3	350.0	421.4
125°	163.9	164.8	167.4	172.3	182.9	199.9	223.4	252.5	290.2	342.2	405.2
127.5°	172.3	173.8	177.2	183.5	194.8	211.4	233.3	259.7	292.3	336.0	389.9
130°	178.2	179.7	184.1	191.2	203.0	219.3	240.2	265.1	294.0	332.6	380.4
132.5°	182.0	184.1	189.5	197.8	210.2	226.2	246.4	269.2	295.6	329.3	371.6
135°	189.2	191.2	197.8	206.7	218.5	234.6	253.9	274.3	297.0	324.3	359.8
137.5°	198.3	199.9	206.1	215.0	226.6	242.7	259.6	278.4	299.3	321.3	350.0
140°	203.0	204.7	211.5	220.7	231.5	247.0	263.8	281.1	299.6	319.2	344.6
142.5°	209.4	210.4	216.6	225.6	235.8	250.2	265.9	282.1	299.5	318.0	340.3
145°	218.9	219.9	225.3	233.1	243.1	256.1	271.0	285.2	300.6	317.2	335.4
147.5°	227.9	228.6	233.5	240.9	249.8	261.4	274.4	287.3	301.2	315.7	331.1
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°	1059.3	1059.3	1059.3	1059.3	1059.3	1059.3	1059.3	1059.3
2.5°	1056.9	1058.2	1059.5	1060.1	1059.9	1059.7	1059.5	1059.3
5°	1053.7	1055.5	1057.4	1058.2	1057.9	1057.7	1057.5	1057.3
7.5°	1044.9	1046.5	1048.1	1048.8	1048.6	1048.4	1048.1	1047.9
10°	1036.6	1038.2	1039.8	1040.5	1040.3	1040.1	1039.8	1039.6
12.5°	1026.7	1028.0	1029.2	1029.5	1028.9	1028.3	1027.7	1027.1
15°	1008.1	1009.5	1010.9	1011.1	1010.2	1009.2	1008.3	1007.4
17.5°	984.4	985.5	986.5	986.8	986.2	985.7	985.1	984.6
20°	966.2	966.9	967.6	967.9	967.9	967.9	967.9	967.9
22.5°	947.5	948.3	949.2	949.4	948.8	948.3	947.7	947.2
25°	917.9	918.8	919.7	919.6	918.4	917.3	916.1	915.0
27.5°	883.4	884.1	884.7	884.9	884.4	884.0	883.6	883.2
30°	859.8	860.3	860.7	860.9	860.6	860.4	860.2	859.9
32.5°	837.4	837.8	838.3	838.4	838.2	838.0	837.7	837.5
35°	801.1	801.8	802.5	802.8	802.8	802.8	802.8	802.8
37.5°	762.9	763.8	764.7	765.2	765.1	765.0	764.9	764.8
40°	737.1	738.1	739.0	739.7	740.1	740.6	741.1	741.5
42.5°	713.4	714.5	715.6	716.2	716.3	716.4	716.5	716.6
45°	675.2	676.8	678.4	679.3	679.6	679.8	680.0	680.3
47.5°	635.7	638.1	640.4	641.9	642.4	642.9	643.4	643.9
50°	609.5	612.1	614.6	616.2	616.9	617.6	618.3	619.0
52.5°	583.3	586.0	588.7	590.4	590.9	591.4	591.9	592.4
55°	542.0	544.6	547.1	548.8	549.7	550.7	551.6	552.5
57.5°	501.2	504.1	507.0	508.8	509.5	510.2	510.9	511.6
60°	473.2	476.7	480.2	482.2	482.9	483.6	484.3	485.0
62.5°	444.9	448.7	452.6	454.9	455.8	456.7	457.5	458.4
65°	402.6	406.1	409.5	411.7	412.7	413.6	414.5	415.4
67.5°	359.2	363.4	367.6	370.3	371.5	372.7	373.9	375.1
70°	329.7	334.1	338.5	341.3	342.7	344.1	345.5	346.9
72.5°	302.2	306.9	311.7	314.6	315.6	316.6	317.6	318.6
75°	260.6	265.2	269.8	272.7	273.8	275.0	276.1	277.3
77.5°	218.9	224.0	229.1	232.1	233.0	233.9	234.8	235.8
80°	194.0	199.1	204.1	207.1	208.1	209.0	209.9	210.8
82.5°	170.3	175.2	180.1	183.4	185.1	186.7	188.4	190.1
85°	137.9	143.0	148.1	151.5	153.4	155.2	157.1	158.9
87.5°	113.6	119.0	124.5	128.2	129.8	131.4	133.1	134.7
90°	106.0	111.9	117.8	122.4	124.0	125.6	127.8	129.4
92.5°	193.2	170.6	157.6	152.5	146.8	147.0	147.9	148.6
95°	496.1	414.5	349.4	304.8	265.9	250.4	247.5	240.0
97.5°	691.1	635.2	571.7	508.3	474.6	444.2	429.2	423.5
100°	777.8	754.7	700.8	644.6	606.6	566.9	547.2	539.4
102.5°	804.7	826.6	803.0	765.9	725.2	697.4	675.8	670.4
105°	780.5	863.3	893.0	889.8	873.2	856.0	846.2	841.0
107.5°	711.1	820.0	889.0	921.8	932.4	933.7	931.4	928.3
110°	660.0	772.7	857.5	909.0	936.3	948.8	954.4	956.0



TEST NUMBER: P333219

CATALOG NUMBER: S125DIP-S850D590U835-4F0-1E-UDD-D4

CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
112.5°	618.8	725.9	811.5	871.6	910.7	930.9	942.5	948.2
115°	566.8	659.3	741.6	806.6	852.5	881.2	898.6	907.4
117.5°	531.0	611.1	682.3	742.1	788.2	818.0	835.5	841.6
120°	511.2	583.6	650.3	703.1	746.7	775.5	792.3	798.2
122.5°	495.2	562.4	622.0	671.6	710.6	737.1	753.9	759.4
125°	472.2	534.1	587.4	630.9	664.0	688.5	702.2	709.1
127.5°	448.6	506.3	556.1	596.9	627.2	649.2	662.4	666.3
130°	434.4	487.8	535.5	574.8	604.5	624.4	637.0	641.6
132.5°	419.6	469.9	513.5	551.3	580.8	600.6	612.0	616.9
135°	399.3	441.7	481.2	515.8	542.1	562.0	573.5	578.0
137.5°	382.5	417.1	450.1	479.6	503.0	521.0	531.4	536.1
140°	372.8	402.1	430.9	456.6	478.6	494.4	503.9	507.7
142.5°	364.5	389.3	414.1	436.4	455.2	468.7	477.7	481.1
145°	354.3	373.1	391.9	408.4	423.0	433.6	440.8	444.0
147.5°	345.4	360.1	374.1	386.1	397.4	405.5	409.6	411.0
150°	340.5	353.1	363.9	374.3	383.1	390.2	392.7	393.5
152.5°	336.0	347.2	357.1	365.1	372.3	377.9	380.2	380.8
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)