

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: P333129-840

Luminaire Tested: **S125DIP-S375D590U840-4F0-1E-UDD-D4**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P333129-840  
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-S375D590U840-4F0-1E-UDD-D4  
Description: DEFINE 5 DIRECT-INDIRECT PENDANT LED LUMINAIRE  
DOWNLIGHT 375 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: 3618.7 lumens  
Efficiency: N/A  
Efficacy: 141.4 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-Indirect

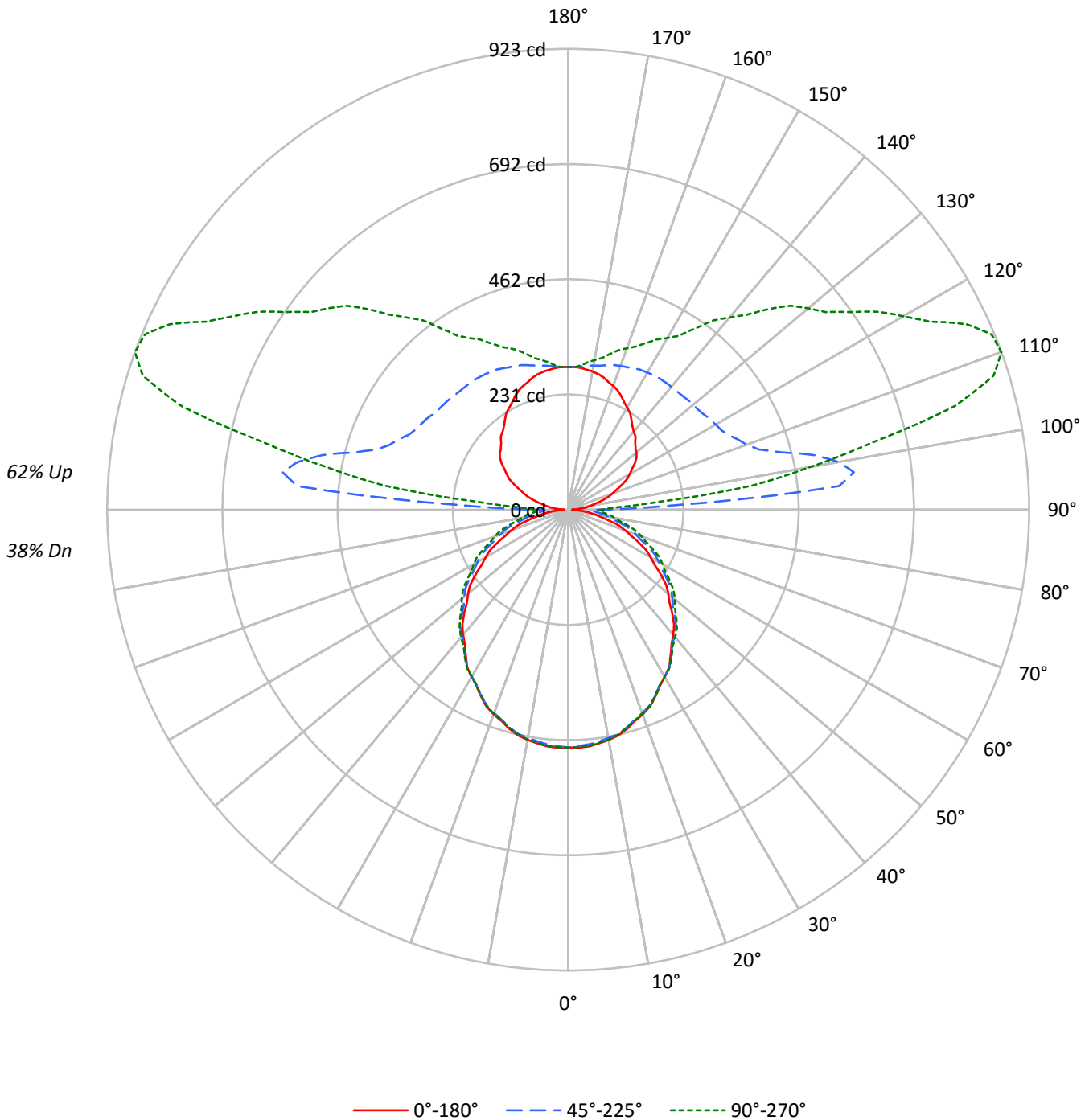
Input Watts (W): 25.6  
Input Voltage (V): 120  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



TEST NUMBER: P333129-840

CATALOG NUMBER: S125DIP-S375D590U840-4F0-1E-UDD-D4

### Luminous Intensity Polar Plot





TEST NUMBER: P333129-840

CATALOG NUMBER: S125DIP-S375D590U840-4F0-1E-UDD-D4

**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	104	104	104	104	95	95	95	95	77	77	77	60	60	60	45	45	45
1	95	90	86	82	86	82	78	75	66	64	62	52	51	49	39	38	37
2	86	78	72	67	78	71	66	61	58	54	51	46	43	41	34	32	31
3	78	69	61	55	71	62	56	51	51	46	42	40	37	34	30	28	26
4	71	61	53	47	64	55	48	43	45	40	36	36	32	29	27	24	22
5	65	54	46	40	59	49	42	37	40	35	31	32	28	25	24	21	19
6	60	48	40	34	54	44	37	32	36	31	27	29	25	22	22	19	17
7	56	43	35	30	50	40	33	28	33	27	23	26	22	19	20	17	15
8	51	39	32	26	47	36	29	24	30	24	21	24	20	17	18	15	13
9	48	36	28	23	43	33	26	22	27	22	18	22	18	15	17	14	12
10	45	33	25	21	40	30	24	19	25	20	16	20	16	14	16	13	11

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

	0°	45°	90°
0°	3075	3075	3075
5°	3081	3017	3027
10°	3059	2963	2960
15°	3022	2899	2873
20°	2974	2819	2786
25°	2915	2734	2680
30°	2844	2641	2584
35°	2778	2554	2494
40°	2711	2463	2406
45°	2635	2385	2327
50°	2563	2302	2256
55°	2474	2222	2175
60°	2380	2130	2090
65°	2281	2035	1997
70°	2168	1905	1900
75°	1987	1780	1780
80°	1753	1629	1650
85°	1538	1527	1610



TEST NUMBER: P333129-840

CATALOG NUMBER: S125DIP-S375D590U840-4F0-1E-UDD-D4

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	45.0	1.2
10°-20°	127.8	3.5
20°-30°	190.0	5.3
30°-40°	225.1	6.2
40°-50°	232.7	6.4
50°-60°	214.4	5.9
60°-70°	173.3	4.8
70°-80°	116.1	3.2
80°-90°	61.8	1.7
90°-100°	240.9	6.7
100°-110°	470.1	13.0
110°-120°	434.5	12.0
120°-130°	348.1	9.6
130°-140°	275.9	7.6
140°-150°	205.9	5.7
150°-160°	144.4	4.0
160°-170°	85.1	2.4
170°-180°	27.7	0.8
0°-30°	362.8	10.0
0°-40°	587.9	16.2
0°-60°	1035.1	28.6
0°-90°	1386.2	38.3
90°-120°	1145.5	31.7
90°-150°	1975.4	54.6
90°-180°	2233.0	61.7
0°-180°	3618.7	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	476	476	476	476	476	
5°	476	475	472	475	475	45
15°	454	455	452	454	453	128
25°	413	414	412	413	411	190
35°	358	360	359	361	361	224
45°	294	299	302	305	306	227
55°	226	234	241	246	248	202
65°	156	167	178	184	187	155
75°	86	98	113	122	125	91
85°	26	41	57	67	71	27
90°	8	28	48	61	66	6
95°	25	75	544	276	183	25
105°	69	103	443	857	802	73
115°	119	147	354	749	880	117
125°	163	191	332	593	690	145
135°	190	228	323	491	569	147
145°	221	252	320	401	443	138
155°	251	270	312	353	368	116
165°	274	282	300	318	323	77
175°	285	285	287	291	290	27
180°	286	286	286	286	286	



TEST NUMBER: P333129-840

CATALOG NUMBER: S125DIP-S375D590U840-4F0-1E-UDD-D4

**CANDELA DISTRIBUTION (FULL):**

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	476.1	476.1	476.1	476.1	476.1	476.1	476.1	476.1	476.1	476.1	476.1
2.5°	477.2	477.0	476.9	476.7	476.6	476.2	475.5	474.9	474.4	473.8	474.4
5°	476.1	475.8	475.6	475.4	475.2	474.7	474.0	473.3	472.6	471.8	472.7
7.5°	471.8	471.8	471.7	471.6	471.5	471.1	470.4	469.6	468.9	468.1	468.9
10°	468.1	468.1	468.1	468.1	468.1	467.7	466.9	466.1	465.2	464.3	465.1
12.5°	462.9	463.0	463.0	463.1	463.2	462.9	462.3	461.6	460.9	460.3	460.8
15°	454.5	454.6	454.7	454.9	455.0	454.6	453.9	453.2	452.5	451.8	452.4
17.5°	443.7	443.9	444.1	444.3	444.5	444.3	443.6	442.8	442.1	441.4	441.9
20°	436.0	436.2	436.4	436.6	436.8	436.5	435.8	435.0	434.3	433.5	433.9
22.5°	427.0	427.4	427.7	428.1	428.5	428.2	427.4	426.6	425.8	425.0	425.4
25°	413.0	413.3	413.6	413.9	414.2	414.1	413.5	412.9	412.2	411.6	412.0
27.5°	397.6	398.0	398.5	398.9	399.4	399.3	398.6	397.9	397.2	396.5	396.7
30°	386.0	386.6	387.2	387.9	388.5	388.5	387.9	387.2	386.6	386.0	386.2
32.5°	375.6	376.1	376.6	377.2	377.7	377.7	377.3	376.8	376.4	375.9	376.1
35°	357.5	358.2	359.0	359.7	360.4	360.6	360.3	360.0	359.7	359.4	359.7
37.5°	339.5	340.1	340.8	341.4	342.1	342.4	342.3	342.2	342.1	342.0	342.4
40°	327.2	328.0	328.8	329.6	330.5	330.8	330.7	330.6	330.5	330.4	330.8
42.5°	313.8	314.8	315.9	317.0	318.0	318.7	318.9	319.1	319.4	319.6	320.1
45°	294.5	295.7	296.8	297.9	299.0	299.9	300.4	300.9	301.4	301.9	302.7
47.5°	274.8	275.9	276.9	278.0	279.0	280.0	280.9	281.8	282.7	283.6	284.7
50°	261.4	262.5	263.7	264.8	265.9	267.1	268.2	269.3	270.4	271.7	272.8
52.5°	247.2	248.5	249.9	251.4	252.8	254.1	255.5	256.9	258.3	259.6	260.9
55°	226.3	228.0	229.6	231.4	233.0	234.7	236.3	237.9	239.6	241.3	242.5
57.5°	205.1	207.0	209.0	211.1	213.1	215.0	216.9	218.8	220.8	222.6	223.9
60°	190.9	193.0	195.0	197.1	199.1	201.3	203.3	205.4	207.5	209.5	211.1
62.5°	177.0	179.2	181.3	183.3	185.4	187.5	189.8	192.0	194.3	196.5	198.2
65°	155.9	158.2	160.7	163.0	165.4	167.8	170.4	172.9	175.3	177.8	179.4
67.5°	135.9	138.3	140.5	142.8	145.1	147.5	150.1	152.6	155.1	157.6	159.6
70°	121.4	123.7	126.1	128.5	130.9	133.4	136.1	138.9	141.5	144.2	146.2
72.5°	107.1	109.7	112.1	114.5	117.0	119.8	122.7	125.6	128.6	131.5	133.7
75°	85.8	88.6	91.3	93.9	96.6	99.7	103.0	106.3	109.7	112.9	115.0
77.5°	65.4	68.6	71.7	74.7	77.9	81.0	84.2	87.5	90.6	93.8	96.1
80°	52.7	55.8	59.0	62.1	65.1	68.5	72.0	75.5	79.1	82.6	84.9
82.5°	41.2	44.4	47.8	51.0	54.2	57.8	61.3	64.9	68.6	72.1	74.3
85°	25.7	29.1	32.5	36.0	39.4	42.9	46.6	50.2	53.8	57.4	59.7
87.5°	14.6	18.1	21.6	25.2	28.8	32.4	36.1	39.8	43.4	47.2	49.7
90°	8.1	11.9	16.4	20.9	25.3	29.9	34.0	38.7	42.8	47.5	50.5
92.5°	13.7	18.3	26.3	36.5	49.4	69.6	104.6	161.0	221.9	222.5	189.5
95°	25.0	28.4	35.6	44.7	60.1	89.1	154.2	284.5	447.1	544.4	535.8
97.5°	37.1	40.2	45.8	54.6	68.5	90.0	134.2	230.5	400.2	576.8	665.8
100°	45.4	48.8	53.2	61.8	74.9	94.9	131.7	209.8	358.4	550.1	696.2
102.5°	54.7	57.5	61.3	70.1	82.2	101.6	134.6	200.8	326.5	504.7	675.3
105°	69.3	71.0	75.5	82.9	93.8	112.3	140.8	195.1	294.5	443.3	610.7
107.5°	83.5	86.0	90.2	96.3	107.3	124.0	151.6	198.4	279.9	400.6	545.3
110°	93.7	96.1	99.7	106.0	115.9	133.0	159.6	202.2	274.8	380.2	507.8



TEST NUMBER: P333129-840

CATALOG NUMBER: S125DIP-S375D590U840-4F0-1E-UDD-D4

**CANDELA DISTRIBUTION (continued):**

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	104.3	106.4	109.3	115.4	125.1	141.6	167.0	207.3	273.4	367.7	479.5
115°	119.2	121.1	123.5	129.4	138.8	154.9	178.8	215.0	273.0	353.5	448.1
117.5°	132.5	134.7	137.0	142.7	153.0	168.4	191.2	224.1	274.7	345.4	428.4
120°	141.8	143.8	146.4	151.9	162.0	177.7	200.3	230.4	277.1	341.1	417.2
122.5°	151.1	152.5	154.4	159.8	170.7	186.2	208.7	237.3	278.9	337.3	407.3
125°	163.2	164.2	167.0	172.1	182.9	198.8	219.9	246.8	282.3	332.1	393.7
127.5°	172.3	173.9	177.4	183.9	195.5	211.3	231.3	255.8	286.6	328.6	381.1
130°	178.2	179.9	184.4	191.8	203.8	219.4	238.7	262.1	289.4	326.6	372.9
132.5°	182.5	184.6	190.2	198.5	211.1	226.6	245.6	267.2	292.5	325.1	366.0
135°	189.9	192.1	198.8	208.0	219.9	235.9	254.5	274.2	296.2	322.9	357.1
137.5°	199.2	200.9	207.2	216.4	228.1	244.3	260.9	279.4	300.1	321.8	349.4
140°	204.4	206.1	213.1	222.3	233.2	248.8	265.6	283.0	301.5	321.2	345.4
142.5°	210.9	212.1	218.4	227.5	237.9	252.6	268.3	284.7	302.3	320.9	342.1
145°	220.6	221.6	227.2	235.2	245.5	258.6	273.7	288.0	303.6	320.3	338.1
147.5°	230.1	230.9	235.8	243.3	252.3	264.0	277.1	290.1	304.2	318.8	334.2
150°	236.2	237.3	241.4	248.8	256.9	266.7	279.4	291.4	304.2	317.4	331.2
152.5°	242.7	243.3	246.9	253.5	261.1	269.9	281.7	292.4	303.7	315.6	328.0
155°	251.2	251.2	254.6	260.3	266.1	274.2	284.0	293.2	302.5	312.3	322.6
157.5°	258.7	258.6	261.5	266.4	271.5	277.5	286.0	293.8	300.9	308.7	317.5
160°	263.9	263.3	265.6	269.6	274.2	279.4	286.9	293.8	299.5	306.5	313.4
162.5°	268.0	267.4	269.7	273.3	277.0	281.2	287.8	293.4	298.2	303.7	309.7
165°	274.2	273.1	274.8	277.6	279.9	283.5	288.0	292.7	296.1	299.5	304.2
167.5°	278.3	277.8	278.8	280.4	282.1	284.2	288.0	291.2	292.9	295.5	298.7
170°	281.1	280.5	281.1	282.3	283.5	285.2	288.0	290.3	291.4	293.2	295.5
172.5°	283.0	282.0	282.5	283.7	284.4	285.2	287.6	289.4	289.6	290.4	292.3
175°	285.2	284.0	284.6	285.2	285.2	285.2	286.9	288.0	287.4	287.4	288.0
177.5°	286.2	285.3	285.3	285.7	285.3	285.3	286.2	286.6	285.7	285.7	286.2
180°	285.7	285.7	285.7	285.7	285.7	285.7	285.7	285.7	285.7	285.7	285.7



TEST NUMBER: P333129-840

CATALOG NUMBER: S125DIP-S375D590U840-4F0-1E-UDD-D4

**CANDELA DISTRIBUTION (continued):**

	55°	60°	65°	70°	75°	80°	85°	90°
0°	476.1	476.1	476.1	476.1	476.1	476.1	476.1	476.1
2.5°	474.9	475.5	476.2	476.4	476.3	476.3	476.2	476.1
5°	473.5	474.3	475.1	475.5	475.4	475.3	475.2	475.1
7.5°	469.6	470.3	471.0	471.3	471.2	471.1	471.0	470.9
10°	465.9	466.6	467.3	467.6	467.5	467.4	467.3	467.2
12.5°	461.4	461.9	462.5	462.6	462.4	462.1	461.8	461.6
15°	453.0	453.6	454.2	454.3	453.9	453.5	453.1	452.7
17.5°	442.4	442.8	443.3	443.4	443.2	442.9	442.7	442.4
20°	434.2	434.5	434.8	434.9	434.9	434.9	434.9	434.9
22.5°	425.8	426.2	426.6	426.7	426.4	426.2	425.9	425.7
25°	412.4	412.9	413.3	413.2	412.7	412.2	411.7	411.2
27.5°	397.0	397.3	397.6	397.7	397.5	397.3	397.1	396.9
30°	386.4	386.6	386.8	386.9	386.8	386.7	386.6	386.5
32.5°	376.3	376.5	376.7	376.8	376.7	376.6	376.5	376.4
35°	360.0	360.3	360.6	360.7	360.7	360.7	360.7	360.7
37.5°	342.8	343.3	343.7	343.9	343.9	343.8	343.8	343.7
40°	331.2	331.6	332.1	332.4	332.6	332.9	333.1	333.3
42.5°	320.6	321.1	321.6	321.8	321.9	321.9	321.9	322.0
45°	303.5	304.2	304.9	305.3	305.4	305.5	305.6	305.7
47.5°	285.7	286.8	287.8	288.4	288.7	288.9	289.1	289.3
50°	273.9	275.1	276.2	276.9	277.2	277.5	277.8	278.1
52.5°	262.2	263.4	264.6	265.3	265.5	265.8	266.0	266.2
55°	243.6	244.7	245.9	246.6	247.0	247.4	247.9	248.3
57.5°	225.2	226.5	227.8	228.6	228.9	229.2	229.6	229.9
60°	212.7	214.2	215.8	216.7	217.0	217.3	217.6	217.9
62.5°	200.0	201.7	203.4	204.4	204.8	205.2	205.6	206.0
65°	181.0	182.5	184.0	185.0	185.4	185.8	186.3	186.7
67.5°	161.5	163.3	165.2	166.4	166.9	167.5	168.0	168.5
70°	148.1	150.2	152.1	153.4	154.0	154.6	155.2	155.9
72.5°	135.8	137.9	140.1	141.4	141.8	142.3	142.7	143.2
75°	117.1	119.2	121.3	122.5	123.1	123.6	124.1	124.6
77.5°	98.4	100.7	102.9	104.3	104.7	105.1	105.5	105.9
80°	87.2	89.5	91.7	93.1	93.5	93.9	94.3	94.7
82.5°	76.5	78.8	81.0	82.4	83.2	83.9	84.6	85.4
85°	62.0	64.2	66.6	68.1	68.9	69.8	70.6	71.4
87.5°	52.2	54.7	57.3	59.0	59.7	60.5	61.3	62.0
90°	53.4	56.4	59.4	62.0	62.8	63.5	64.8	65.5
92.5°	143.5	117.8	101.8	94.7	88.1	87.5	87.4	87.2
95°	452.8	367.5	298.9	252.1	211.9	195.3	191.5	183.0
97.5°	653.0	593.7	526.8	461.0	426.2	394.6	378.6	371.9
100°	742.8	716.7	659.5	601.1	561.9	521.1	500.4	491.8
102.5°	771.9	791.5	765.1	725.9	684.1	655.2	632.6	626.3
105°	751.0	832.0	859.5	854.5	836.8	818.5	807.7	801.5
107.5°	683.8	791.1	858.3	889.7	899.7	900.2	897.1	893.1
110°	634.2	745.6	828.8	879.1	905.7	917.5	922.2	922.9





TEST NUMBER: P333129-840

CATALOG NUMBER: S125DIP-S375D590U840-4F0-1E-UDD-D4

**CANDELA DISTRIBUTION (continued):**

	55°	60°	65°	70°	75°	80°	85°	90°
112.5°	594.7	700.5	784.6	843.6	882.2	901.7	912.5	917.4
115°	545.0	636.1	716.9	780.9	826.6	854.7	871.5	879.7
117.5°	511.9	590.7	660.4	719.2	764.9	794.2	810.8	816.2
120°	493.8	564.7	629.9	681.8	725.0	753.3	769.4	774.7
122.5°	479.7	545.4	603.6	652.2	690.8	716.8	733.0	737.8
125°	459.4	519.8	571.6	614.1	646.9	671.1	684.2	690.4
127.5°	438.5	494.9	543.2	583.1	613.0	634.4	647.0	650.2
130°	425.7	477.9	524.2	562.7	592.0	611.5	623.6	627.5
132.5°	412.7	461.6	503.8	540.9	570.1	589.6	600.6	604.9
135°	395.3	436.4	474.5	508.4	534.2	553.7	564.6	568.6
137.5°	380.6	414.0	445.9	474.6	497.8	515.4	525.4	529.6
140°	372.4	400.7	428.3	453.3	475.0	490.4	499.5	502.8
142.5°	365.4	389.3	413.1	434.7	453.2	466.4	474.9	477.8
145°	356.5	374.9	393.2	409.2	423.4	433.6	440.4	443.1
147.5°	348.4	363.0	377.0	388.9	400.0	408.0	411.9	413.1
150°	343.9	356.6	367.5	378.0	386.7	393.7	396.1	396.8
152.5°	339.3	350.6	360.6	368.7	376.0	381.5	383.8	384.5
155°	332.3	341.6	349.6	356.0	361.7	365.8	367.5	368.1
157.5°	325.5	333.1	339.3	344.3	348.7	352.0	353.7	353.6
160°	320.8	326.6	332.3	336.4	340.4	343.4	344.5	343.9
162.5°	315.8	321.1	325.9	329.5	332.6	335.1	335.3	335.2
165°	308.7	312.8	316.3	319.1	321.4	322.6	322.6	322.6
167.5°	302.1	304.8	307.4	309.4	310.6	311.6	311.1	311.0
170°	298.4	300.1	301.8	303.0	304.2	304.8	304.8	304.2
172.5°	294.3	296.0	297.2	297.9	298.2	299.2	298.3	297.7
175°	289.7	289.7	290.9	290.9	290.9	291.4	290.3	289.7
177.5°	286.6	287.1	287.1	287.1	286.6	287.1	285.7	285.7
180°	285.7	285.7	285.7	285.7	285.7	285.7	285.7	285.7

(END OF REPORT)