

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: P242825

Luminaire Tested: **S125DR-S375D935-X4F0-XX-UDD-A-W**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P242825
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1802-639-22)
Test Lab: INNOVATION CENTER
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: NEO-RAY
Catalog Number: S125DR-S375D935-X4F0-XX-UDD-A-W
Description: DEFINE 5 DIRECT RECESSED WITH ASYMMETRIC FLUSH DIFFUSER
STANDARD LIGHT ENGINE
Light Source: (92) 3500K CCT, 90 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 1249.7 lumens
Efficiency: N/A
Efficacy: 107.7 lumens/watt
Spacing Criteria (0/90/45): 1.43 / 1.23 / 1.53
Luminous Opening: Rectangular (W 3.88' x L: 0.39' x H: 0')
CIE Type: Direct

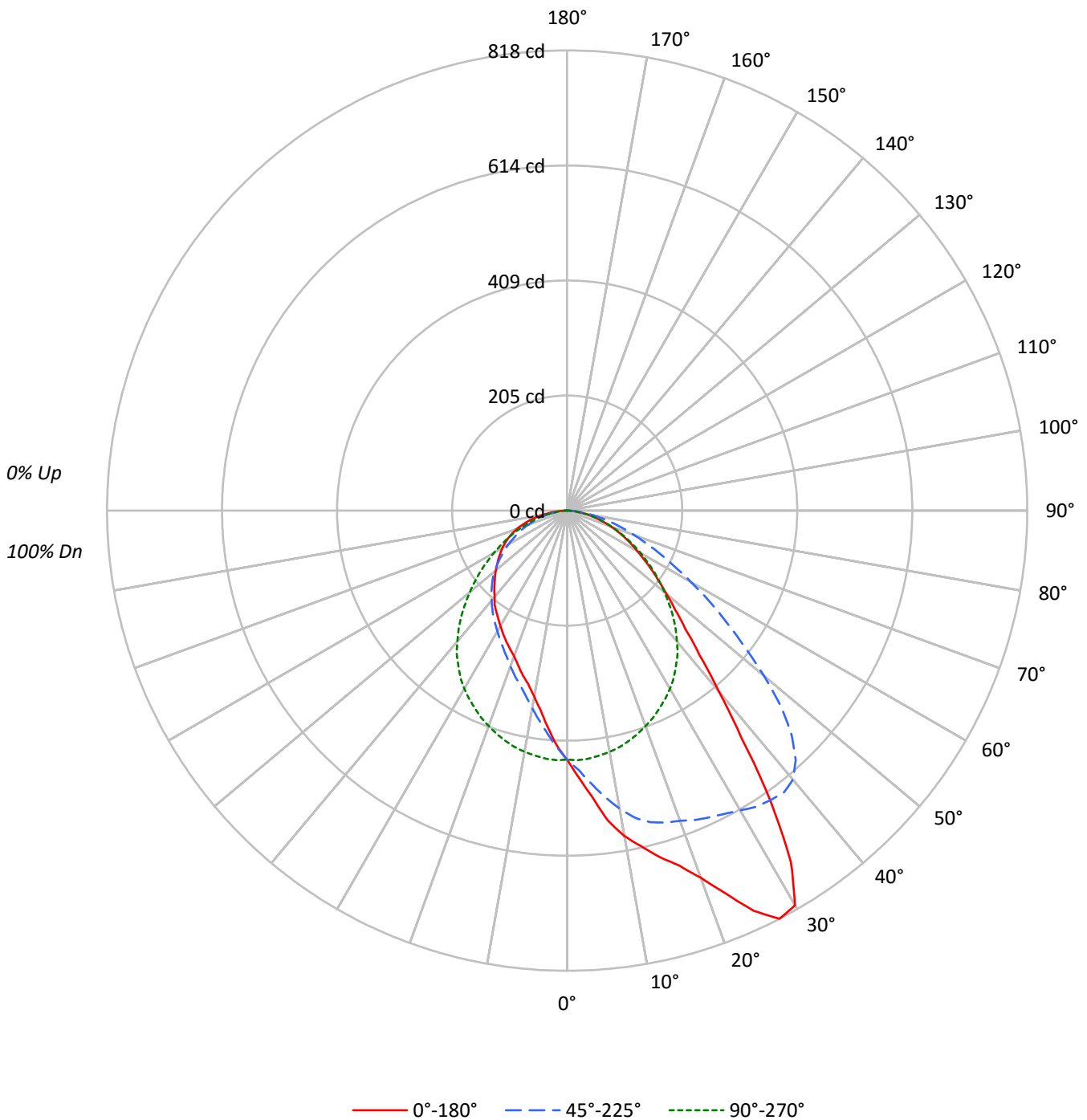
Input Watts (W): 11.6
Input Voltage (V): 120
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



TEST NUMBER: P242825

CATALOG NUMBER: S125DR-S375D935-X4F0-XX-UDD-A-W

Luminous Intensity Polar Plot





TEST NUMBER: P242825

CATALOG NUMBER: S125DR-S375D935-X4F0-XX-UDD-A-W

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	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100
1	109	105	101	97	107	103	99	96	99	96	93	95	92	90	91	89	87	85
2	100	92	86	80	98	90	84	79	87	82	78	84	80	76	81	77	74	72
3	92	82	74	68	89	80	73	67	77	71	66	74	69	65	72	67	64	61
4	84	73	64	58	82	71	63	57	69	62	57	67	61	56	64	59	55	53
5	78	65	56	50	76	64	56	50	62	55	49	60	54	49	58	53	48	46
6	72	59	50	44	70	58	50	44	56	49	43	54	48	43	53	47	43	41
7	67	53	45	39	65	53	45	39	51	44	39	50	43	38	48	42	38	36
8	62	49	41	35	61	48	40	35	47	40	34	46	39	34	44	39	34	32
9	58	45	37	31	57	44	37	31	43	36	31	42	36	31	41	35	31	29
10	54	41	34	28	53	41	33	28	40	33	28	39	33	28	38	32	28	26

AVERAGE LUMINANCE (cd/sqm):

	0°	90°	180°
0°	3147	3147	3147
5°	3645	3158	2765
10°	4241	3142	2423
15°	4694	3118	2235
20°	5254	3082	2084
25°	6155	3041	2011
30°	6648	3000	1947
35°	5466	2924	1904
40°	3886	2818	1859
45°	2985	2675	1832
50°	2548	2498	1829
55°	2269	2325	1845
60°	2047	2135	1892
65°	1890	1944	1941
70°	1719	1746	1968
75°	1519	1538	1950
80°	1277	1252	1785
85°	1011	905	1443



TEST NUMBER: P242825

CATALOG NUMBER: S125DR-S375D935-X4F0-XX-UDD-A-W

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	42.6	3.4
10°-20°	126.9	10.2
20°-30°	206.2	16.5
30°-40°	252.0	20.2
40°-50°	228.6	18.3
50°-60°	182.1	14.6
60°-70°	126.8	10.1
70°-80°	67.6	5.4
80°-90°	16.8	1.3
90°-100°	0.0	0.0
100°-110°	0.0	0.0
110°-120°	0.0	0.0
120°-130°	0.0	0.0
130°-140°	0.0	0.0
140°-150°	0.0	0.0
150°-160°	0.0	0.0
160°-170°	0.0	0.0
170°-180°	0.0	0.0
0°-30°	375.8	30.1
0°-40°	627.8	50.2
0°-60°	1038.5	83.1
0°-90°	1249.7	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1249.7	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	443	443	443	443	443	
5°	511	487	443	398	388	51
15°	638	574	424	321	304	182
25°	785	601	388	269	256	360
35°	630	629	337	228	220	387
45°	297	564	266	189	182	236
55°	183	346	188	144	149	165
65°	112	183	116	97	115	112
75°	55	82	56	51	71	60
85°	12	16	11	12	18	14
90°	0	0	0	0	0	



TEST NUMBER: P242825

CATALOG NUMBER: S125DR-S375D935-X4F0-XX-UDD-A-W

CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	442.8	442.8	442.8	442.8	442.8	442.8	442.8	442.8	442.8	442.8	442.8
2.5°	474.8	474.0	473.3	471.8	472.9	469.7	468.2	465.6	462.4	461.2	459.9
5°	510.9	511.8	512.7	508.8	509.2	506.5	500.5	495.6	491.7	486.6	483.1
7.5°	555.6	552.8	553.0	550.5	546.2	542.6	536.8	528.7	521.4	513.1	506.0
10°	587.6	587.7	586.1	583.0	578.3	575.0	566.7	558.8	549.2	537.9	529.9
12.5°	611.6	612.6	610.3	606.0	604.3	595.6	589.6	579.8	568.0	559.5	546.2
15°	637.9	635.9	634.4	629.3	625.3	617.4	607.1	597.3	584.9	573.5	562.0
17.5°	661.2	662.9	660.5	656.7	645.1	635.9	623.1	610.7	595.8	581.5	568.2
20°	694.7	696.2	691.9	683.8	669.1	659.9	641.7	624.4	606.5	586.8	571.8
22.5°	736.4	734.5	728.3	715.0	702.8	683.8	663.7	641.7	618.2	595.3	574.0
25°	784.9	777.0	773.4	758.2	741.5	716.5	689.4	658.6	630.8	601.3	575.7
27.5°	818.0	814.8	809.7	797.3	778.1	749.8	717.8	681.0	643.6	607.5	575.3
30°	810.1	810.5	810.8	807.5	796.2	776.1	744.3	703.9	657.3	615.4	576.7
32.5°	740.2	748.6	756.7	767.2	774.0	774.2	757.3	721.8	673.5	624.4	575.9
35°	630.0	632.1	653.3	674.4	703.0	725.1	740.0	723.8	683.4	628.7	575.3
37.5°	509.4	519.7	535.7	559.4	602.2	637.2	683.0	698.8	679.8	632.3	575.2
40°	418.8	428.2	437.8	462.0	496.8	541.5	595.4	641.5	652.2	624.4	569.5
42.5°	348.8	355.8	366.7	383.4	411.1	449.4	500.3	564.1	607.7	601.5	557.7
45°	297.0	301.7	309.9	324.4	345.5	376.5	422.0	487.7	545.1	564.1	537.6
47.5°	260.1	260.3	267.1	277.4	293.4	322.0	356.0	410.1	472.0	515.8	509.6
50°	230.4	229.5	234.6	243.2	255.2	272.7	304.9	346.0	404.9	456.2	470.5
52.5°	204.9	205.2	207.9	213.7	223.3	237.6	259.6	295.7	343.8	396.8	426.9
55°	183.1	182.3	185.9	190.2	197.5	207.3	224.6	253.0	293.8	345.7	380.6
57.5°	162.0	164.1	165.6	168.6	175.0	181.8	197.2	219.0	252.6	298.7	335.7
60°	144.0	146.0	147.2	150.2	155.1	160.7	172.0	188.9	216.2	254.5	291.1
62.5°	127.8	129.3	129.5	132.1	135.9	141.3	149.6	163.1	183.3	215.6	251.3
65°	112.4	112.4	113.2	116.0	117.8	122.7	129.5	139.8	157.1	183.3	213.9
67.5°	97.4	98.3	98.1	99.4	101.1	105.3	110.3	119.0	132.7	152.4	177.8
70°	82.7	83.5	83.3	84.2	86.1	88.5	92.5	100.6	109.8	126.1	147.2
72.5°	69.5	69.7	69.2	70.5	71.4	73.5	78.0	81.4	89.8	103.0	119.4
75°	55.3	55.6	56.0	56.8	57.9	59.0	61.3	65.6	71.2	81.6	92.7
77.5°	44.0	43.0	44.2	44.0	44.5	45.5	47.6	50.0	54.9	61.8	71.0
80°	31.2	31.4	31.4	31.6	32.5	33.1	34.8	36.5	40.0	44.9	50.9
82.5°	20.7	21.2	20.9	21.2	22.0	22.4	23.1	24.4	26.1	29.7	33.6
85°	12.4	11.5	11.8	12.2	12.2	12.4	13.2	13.7	14.8	16.4	18.0
87.5°	4.5	4.9	5.1	5.1	5.3	5.3	6.0	6.0	6.6	7.1	7.9
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0



TEST NUMBER: P242825

CATALOG NUMBER: S125DR-S375D935-X4F0-XX-UDD-A-W

CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°	95°	100°	105°
0°	442.8	442.8	442.8	442.8	442.8	442.8	442.8	442.8	442.8	442.8	442.8
2.5°	458.8	457.5	456.0	453.4	450.2	448.5	445.8	444.1	440.8	437.9	434.9
5°	478.7	473.8	469.3	463.5	457.1	453.0	448.1	442.6	437.0	431.2	424.8
7.5°	498.7	490.6	481.7	472.5	463.5	455.0	447.2	439.1	431.7	422.5	414.8
10°	518.8	507.9	496.2	482.5	469.1	457.5	445.6	435.3	424.8	413.5	403.5
12.5°	538.9	523.5	505.8	490.4	473.7	459.0	444.5	430.6	416.7	403.9	391.9
15°	546.2	533.4	518.2	496.8	478.7	459.4	440.9	423.8	407.9	394.0	379.3
17.5°	553.3	537.0	520.8	500.2	476.7	455.8	434.9	416.3	398.7	381.2	367.8
20°	555.0	538.1	521.0	500.9	476.7	451.9	431.0	407.5	388.1	369.9	352.6
22.5°	554.5	534.7	515.8	494.9	471.4	449.0	422.7	398.7	377.2	359.4	341.1
25°	550.3	529.9	506.5	485.7	462.4	438.1	412.6	387.8	366.3	345.8	328.0
27.5°	547.9	522.0	496.4	472.3	450.0	427.6	402.8	377.2	353.7	332.9	316.3
30°	542.4	513.3	483.6	458.2	435.1	413.5	390.4	365.6	340.8	320.5	302.4
32.5°	537.6	502.4	470.6	442.5	417.6	396.8	375.9	352.6	328.4	307.7	289.6
35°	531.0	491.7	455.8	424.6	398.5	376.9	359.0	337.0	314.6	294.7	277.4
37.5°	523.3	477.8	439.8	407.3	378.9	356.4	339.5	322.3	300.0	280.4	265.0
40°	513.9	462.8	422.0	388.5	358.8	335.1	319.7	303.7	285.9	268.0	251.5
42.5°	502.0	449.2	403.9	367.3	337.9	315.0	298.7	285.7	270.5	254.1	239.1
45°	487.0	432.3	384.2	345.5	315.8	293.0	276.3	266.1	254.3	238.5	225.5
47.5°	467.1	413.1	363.5	323.5	292.8	271.8	255.8	245.8	237.2	224.8	212.6
50°	438.7	391.1	340.8	301.1	270.5	249.2	234.8	225.9	218.8	209.8	199.8
52.5°	406.9	363.5	318.4	279.3	249.0	228.2	214.1	206.6	200.9	195.1	185.3
55°	372.9	335.3	292.5	255.2	227.2	206.8	194.3	187.6	182.7	177.8	171.8
57.5°	336.3	305.8	266.5	231.8	205.8	186.6	175.0	168.0	164.1	161.5	157.7
60°	297.2	272.0	239.3	208.3	183.1	166.5	155.3	150.2	147.0	144.9	142.3
62.5°	260.9	241.3	211.6	184.0	162.8	147.4	137.6	132.7	129.7	128.9	126.9
65°	225.4	209.4	184.4	160.9	142.1	128.8	120.3	115.6	113.7	112.6	112.8
67.5°	189.6	179.3	158.4	137.8	122.4	110.5	103.6	100.0	99.1	97.4	97.4
70°	157.5	150.2	133.3	115.8	102.4	93.8	87.8	84.0	83.1	82.3	82.1
72.5°	129.1	122.9	108.8	95.7	84.0	76.7	72.0	70.1	68.4	68.0	68.0
75°	101.3	97.7	86.1	75.0	66.7	61.5	58.1	56.0	54.9	54.7	54.9
77.5°	76.5	73.1	65.0	56.8	51.3	47.2	44.0	43.4	41.9	42.1	41.7
80°	54.1	52.1	47.4	41.2	36.8	33.5	32.0	30.6	30.3	29.7	30.3
82.5°	35.5	33.3	30.4	27.1	23.7	22.0	20.5	20.3	20.1	19.9	19.9
85°	19.4	19.5	17.7	14.7	13.2	12.0	11.1	11.1	10.9	10.7	10.9
87.5°	8.3	7.9	7.1	6.6	5.6	5.1	4.9	5.1	4.5	4.3	4.5
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0



TEST NUMBER: P242825

CATALOG NUMBER: S125DR-S375D935-X4F0-XX-UDD-A-W

CANDELA DISTRIBUTION (continued):

	110°	115°	120°	125°	130°	135°	140°	145°	150°	155°	160°
0°	442.8	442.8	442.8	442.8	442.8	442.8	442.8	442.8	442.8	442.8	442.8
2.5°	433.2	431.2	429.5	425.7	423.7	420.8	418.6	421.0	418.4	419.5	417.8
5°	421.6	416.3	412.6	407.1	402.4	398.1	394.9	394.3	392.8	392.1	389.8
7.5°	407.7	401.7	395.5	388.7	383.1	377.0	373.5	370.1	368.0	365.4	363.3
10°	395.7	386.8	379.3	370.7	363.1	356.6	351.3	348.7	346.2	342.6	341.3
12.5°	380.8	371.6	362.0	352.6	345.5	337.9	333.6	329.3	327.8	323.7	323.5
15°	369.5	355.8	346.8	337.4	327.4	321.4	317.6	313.3	311.4	308.6	306.6
17.5°	355.6	343.2	331.9	322.3	313.3	308.4	303.6	300.5	297.3	295.3	291.9
20°	340.2	328.5	317.3	306.9	300.4	294.5	290.8	288.0	284.6	283.6	280.2
22.5°	327.2	314.1	303.4	295.1	287.8	281.0	276.9	275.2	273.1	269.7	269.7
25°	312.9	299.6	290.4	281.7	275.4	269.3	266.5	264.1	261.8	259.8	259.0
27.5°	300.9	289.1	277.8	269.9	264.5	258.8	256.4	253.2	251.5	249.8	247.5
30°	288.1	275.9	266.3	258.8	252.8	247.9	245.3	243.2	241.7	240.2	239.1
32.5°	275.0	263.9	254.7	247.4	241.3	238.0	235.7	234.4	232.7	230.8	229.3
35°	263.7	251.3	242.3	235.9	231.2	228.4	225.7	224.4	222.5	222.5	221.0
37.5°	250.4	239.5	231.4	225.5	221.4	218.8	215.8	215.0	213.7	213.0	212.4
40°	238.7	228.7	221.2	215.4	210.9	208.8	206.6	205.1	204.3	203.4	203.0
42.5°	226.7	217.3	210.1	204.9	201.1	199.4	197.4	196.4	194.7	193.4	193.2
45°	214.5	205.2	198.7	194.3	191.0	188.9	187.6	185.3	184.6	183.1	182.9
47.5°	203.2	194.2	187.6	184.0	181.0	179.5	177.4	175.0	174.0	173.1	172.9
50°	190.2	182.1	176.1	172.7	169.9	167.5	165.4	163.9	163.3	163.3	163.7
52.5°	177.1	170.5	165.6	161.3	158.6	156.0	154.1	153.4	152.4	153.6	154.3
55°	164.3	157.3	153.6	149.6	147.0	144.0	143.0	142.7	142.1	143.6	144.4
57.5°	150.6	145.9	141.3	137.2	135.0	133.1	131.6	131.4	132.5	132.9	135.1
60°	137.6	131.9	128.0	125.0	122.2	121.0	120.7	120.3	121.0	123.1	126.3
62.5°	123.3	119.0	114.7	112.6	110.7	108.6	108.6	109.0	110.7	113.2	116.3
65°	109.4	105.4	102.6	100.0	98.3	97.2	97.5	98.3	100.0	103.2	106.8
67.5°	95.1	92.5	89.8	87.4	85.7	85.9	86.1	87.0	89.1	92.9	96.2
70°	81.4	78.4	76.3	75.4	74.1	73.3	74.4	76.3	78.0	81.4	84.2
72.5°	67.7	65.2	63.7	63.2	62.8	62.2	62.4	64.5	66.9	70.3	73.7
75°	54.1	53.2	52.1	51.3	50.7	51.1	51.5	53.4	55.3	58.8	62.6
77.5°	41.9	40.8	40.0	39.8	39.5	39.7	40.6	42.1	44.0	46.6	49.6
80°	29.9	29.5	29.1	28.9	28.9	29.1	30.6	31.6	33.3	35.7	38.0
82.5°	19.7	19.5	19.5	19.5	19.7	19.7	20.5	21.8	23.1	24.8	26.7
85°	11.5	11.1	11.7	11.8	11.5	12.0	12.4	13.2	13.7	14.7	15.6
87.5°	4.7	5.1	4.9	5.1	5.1	5.5	5.3	6.0	6.4	6.8	6.6
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0



TEST NUMBER: P242825

CATALOG NUMBER: S125DR-S375D935-X4F0-XX-UDD-A-W

CANDELA DISTRIBUTION (continued):

	165°	170°	175°	180°
0°	442.8	442.8	442.8	442.8
2.5°	416.7	418.0	416.9	418.4
5°	388.9	387.2	388.3	387.6
7.5°	363.1	361.6	359.4	358.6
10°	339.3	337.2	337.0	335.7
12.5°	321.8	319.9	317.3	316.9
15°	305.4	303.9	302.6	303.7
17.5°	291.5	290.2	289.8	288.7
20°	278.6	277.6	278.0	275.5
22.5°	268.2	266.1	265.8	265.8
25°	257.3	256.4	255.4	256.4
27.5°	247.7	246.8	246.4	246.6
30°	239.1	237.2	237.4	237.2
32.5°	229.7	228.6	228.2	227.8
35°	220.5	220.5	219.5	219.5
37.5°	212.0	211.8	211.3	211.6
40°	202.2	202.1	201.5	200.4
42.5°	192.8	192.1	191.9	191.7
45°	182.9	182.9	182.5	182.3
47.5°	173.1	173.5	174.2	174.0
50°	164.5	164.7	165.2	165.4
52.5°	154.9	156.2	156.9	156.8
55°	146.0	147.4	148.7	148.9
57.5°	137.2	138.9	140.2	140.6
60°	128.2	130.6	132.3	133.1
62.5°	119.5	122.4	124.1	124.1
65°	110.0	112.8	114.3	115.4
67.5°	100.0	102.8	104.3	105.3
70°	88.9	91.7	94.0	94.7
72.5°	78.0	80.4	82.1	83.1
75°	65.0	68.4	70.1	71.0
77.5°	52.6	56.0	57.0	57.5
80°	40.2	42.1	43.4	43.6
82.5°	28.6	30.1	30.3	30.8
85°	16.9	17.7	17.9	17.7
87.5°	7.0	6.8	6.8	7.1
90°	0.0	0.0	0.0	0.0

(END OF REPORT)