

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: P243788

Luminaire Tested: **S125RDR-H375D935-X4F0-XX-UDD-A-W**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P243788
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1802-639-71)
Test Lab: INNOVATION CENTER
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: NEO-RAY
Catalog Number: S125RDR-H375D935-X4F0-XX-UDD-A-W
Description: DEFINE 5 REGRESSED DIRECT RECESSED WITH ASYMMETRIC FLUSH DIFFUSER.
HIGH PERFORMANCE LIGHT ENGINE
Light Source: (184) 3500K CCT, 90 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 1209.6 lumens
Efficiency: N/A
Efficacy: 108.0 lumens/watt
Spacing Criteria (0/90/45): 1.42 / 1.22 / 1.5
Luminous Opening: Rectangular (W 3.88' x L: 0.39' x H: 0')
CIE Type: Direct

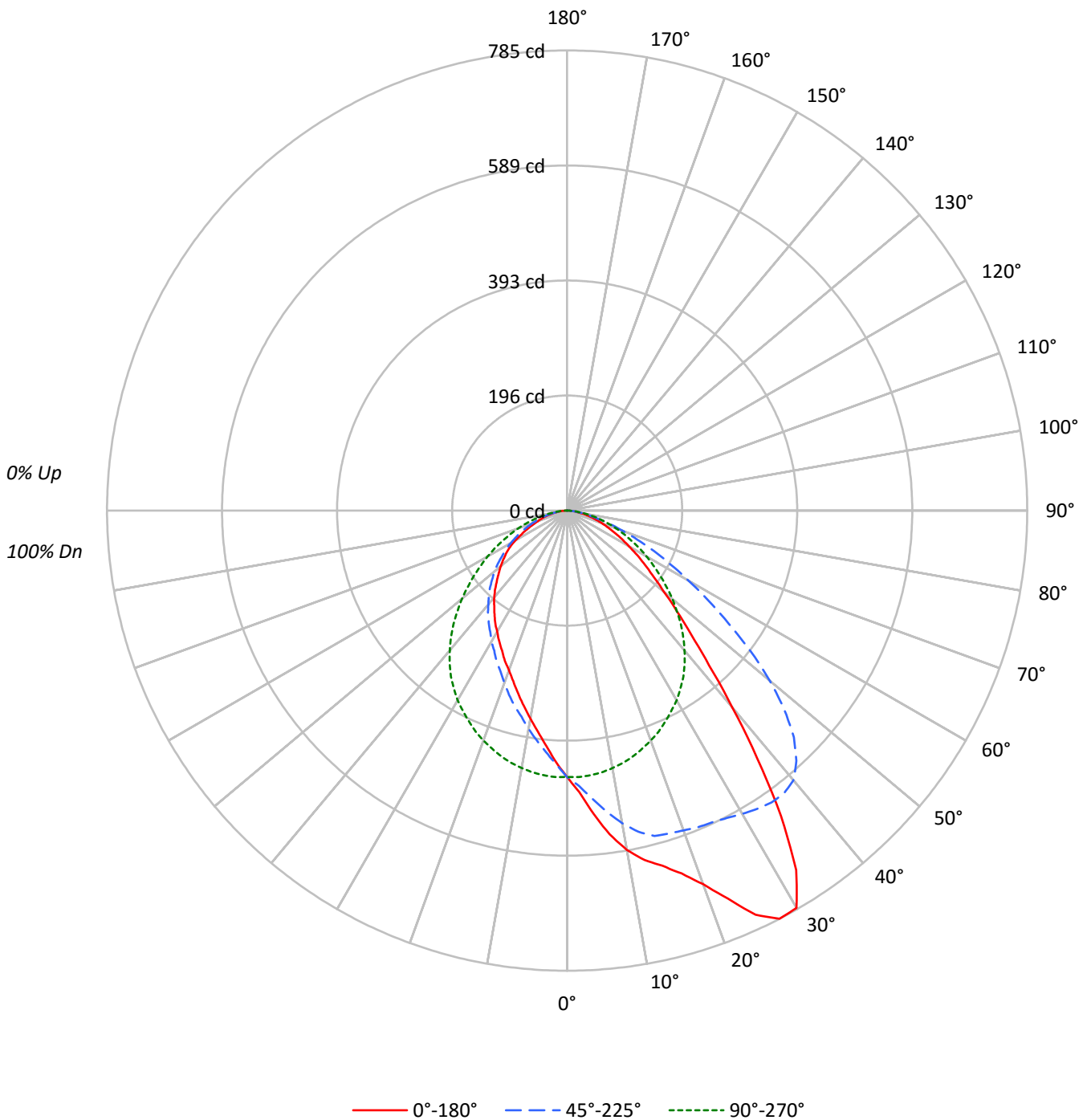
Input Watts (W): 11.2
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



TEST NUMBER: P243788

CATALOG NUMBER: S125RDR-H375D935-X4F0-XX-UDD-A-W

Luminous Intensity Polar Plot





TEST NUMBER: P243788

CATALOG NUMBER: S125RDR-H375D935-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	110	106	102	98	107	103	100	97	99	96	94	95	93	91	92	90	88	86
2	101	93	87	82	98	91	86	81	88	83	79	85	81	77	82	78	75	73
3	92	83	75	69	90	81	74	68	78	72	67	75	70	66	73	69	65	63
4	85	74	65	59	83	72	65	59	70	63	58	68	62	57	66	61	56	54
5	78	66	58	51	76	65	57	51	63	56	51	61	55	50	59	54	50	48
6	73	60	51	45	71	59	51	45	57	50	45	56	49	44	54	48	44	42
7	67	54	46	40	66	54	46	40	52	45	40	51	44	39	49	44	39	37
8	63	50	42	36	61	49	41	36	48	41	36	47	40	35	45	40	35	33
9	59	46	38	32	57	45	38	32	44	37	32	43	37	32	42	36	32	30
10	55	42	35	29	54	42	34	29	41	34	29	40	34	29	39	33	29	27

AVERAGE LUMINANCE (cd/sqm):

	0°	90°	180°
0°	3230	3230	3230
5°	3708	3235	2877
10°	4243	3219	2601
15°	4614	3193	2379
20°	5128	3157	2192
25°	5967	3112	2063
30°	6424	3066	1958
35°	5520	2998	1873
40°	4067	2889	1795
45°	3003	2755	1703
50°	2379	2591	1634
55°	2010	2400	1572
60°	1731	2223	1456
65°	1503	2025	1266
70°	1317	1854	1108
75°	1118	1623	1049
80°	872	1359	872
85°	767	1085	791



TEST NUMBER: P243788

CATALOG NUMBER: S125RDR-H375D935-X4F0-XX-UDD-A-W

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	43.7	3.6
10°-20°	129.4	10.7
20°-30°	206.4	17.1
30°-40°	250.7	20.7
40°-50°	225.9	18.7
50°-60°	173.7	14.4
60°-70°	112.7	9.3
70°-80°	54.2	4.5
80°-90°	12.8	1.1
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°	379.6	31.4
0°-40°	630.3	52.1
0°-60°	1029.8	85.1
0°-90°	1209.6	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1209.6	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	454	454	454	454	454	
5°	520	494	453	413	403	52
15°	627	575	434	346	323	180
25°	761	586	397	284	263	348
35°	636	608	346	233	216	389
45°	299	547	274	186	169	237
55°	162	336	194	136	127	147
65°	89	163	120	86	75	90
75°	41	55	59	42	38	44
85°	9	10	13	11	10	11
90°	0	0	0	0	0	



TEST NUMBER: P243788

CATALOG NUMBER: S125RDR-H375D935-X4F0-XX-UDD-A-W

CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	454.5	454.5	454.5	454.5	454.5	454.5	454.5	454.5	454.5	454.5	454.5
2.5°	480.8	482.6	481.2	482.1	480.6	479.9	478.1	475.4	472.7	470.2	470.0
5°	519.7	519.4	517.9	516.0	514.5	510.9	509.1	503.0	498.8	493.8	491.3
7.5°	556.9	556.0	553.8	551.1	549.8	545.1	540.1	532.4	525.9	517.9	512.0
10°	587.9	587.7	586.1	584.3	579.4	574.2	569.3	561.2	551.5	541.5	533.3
12.5°	610.6	609.7	607.7	604.6	600.7	597.0	590.6	583.2	571.3	561.2	549.8
15°	627.1	626.8	623.9	622.8	615.1	610.0	601.4	594.0	584.8	574.7	562.4
17.5°	649.1	649.9	647.3	641.2	634.2	626.4	614.2	602.1	589.3	577.6	567.7
20°	678.0	676.2	671.8	664.4	651.8	642.3	630.0	615.1	597.8	580.5	566.2
22.5°	716.5	714.5	707.7	698.7	682.8	665.4	646.6	624.3	604.4	584.6	565.9
25°	760.9	757.1	747.0	737.3	714.7	696.2	668.2	641.6	612.7	586.4	565.3
27.5°	785.0	785.0	780.3	769.7	751.9	724.5	696.0	660.5	627.1	591.1	561.2
30°	782.8	781.6	783.4	778.9	767.4	746.8	718.5	681.2	638.7	597.4	561.5
32.5°	727.0	727.5	738.3	745.7	751.5	746.4	728.1	694.4	652.0	603.5	560.1
35°	636.2	637.6	656.7	669.3	695.1	709.9	714.2	696.0	658.0	607.9	557.6
37.5°	532.4	532.4	554.5	573.6	602.5	638.9	666.1	672.9	654.4	607.7	555.4
40°	438.3	437.7	455.2	478.6	509.5	549.7	590.2	625.0	629.5	600.7	547.9
42.5°	358.6	357.7	376.8	389.8	422.2	458.1	512.0	561.2	589.3	578.8	536.7
45°	298.8	298.1	310.5	325.3	348.2	385.5	430.7	485.3	532.5	546.9	515.8
47.5°	253.7	254.1	260.8	273.2	292.7	319.3	359.9	410.5	468.9	502.3	489.5
50°	215.2	216.4	221.5	230.9	245.1	266.5	301.3	347.1	407.1	451.3	454.0
52.5°	186.3	188.1	193.5	198.6	210.5	225.6	252.7	292.3	341.9	394.8	413.8
55°	162.2	163.1	166.2	171.6	180.4	193.0	212.7	242.9	288.9	336.1	369.4
57.5°	142.0	142.0	144.0	147.8	154.8	166.2	179.3	204.4	243.1	285.8	321.3
60°	121.8	122.5	124.0	128.1	132.8	141.5	154.3	170.1	203.6	239.3	277.5
62.5°	104.9	106.1	107.6	109.6	113.9	120.0	129.0	143.6	166.2	199.1	233.2
65°	89.4	90.6	90.8	93.2	96.1	101.1	107.9	118.6	137.3	163.3	191.4
67.5°	75.7	76.2	76.8	78.6	81.3	84.5	89.0	97.0	111.7	129.2	156.6
70°	63.4	63.8	64.0	66.0	67.2	70.1	72.4	77.5	86.9	100.4	121.6
72.5°	51.9	51.4	51.2	52.8	53.3	55.7	58.6	62.2	67.2	76.8	92.6
75°	40.7	40.9	41.1	42.0	42.2	43.3	45.1	47.4	49.7	55.3	65.4
77.5°	31.4	30.6	30.6	31.7	32.1	32.3	33.5	34.8	36.0	39.3	43.3
80°	21.3	21.6	21.6	21.6	21.8	22.2	22.9	24.0	24.9	26.9	27.6
82.5°	15.1	15.1	15.0	15.3	15.5	15.7	15.7	15.7	16.2	16.8	17.5
85°	9.4	9.6	9.0	9.4	9.6	9.6	9.6	9.6	10.1	9.9	10.1
87.5°	4.0	4.1	4.1	4.3	4.3	4.5	4.3	4.5	4.3	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: P243788

CATALOG NUMBER: S125RDR-H375D935-X4F0-XX-UDD-A-W

CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°	95°	100°	105°
0°	454.5	454.5	454.5	454.5	454.5	454.5	454.5	454.5	454.5	454.5	454.5
2.5°	469.5	467.3	466.2	464.1	461.2	459.4	457.6	455.0	453.1	450.0	447.3
5°	486.8	482.4	478.5	473.1	467.8	463.3	458.6	453.4	448.7	443.5	437.9
7.5°	506.0	499.2	490.9	481.4	473.2	466.2	458.3	450.5	443.5	435.2	427.6
10°	524.6	513.6	502.6	489.8	477.9	467.5	456.8	446.0	436.8	426.6	417.2
12.5°	539.0	528.6	512.2	496.3	480.8	467.3	454.0	440.8	428.7	417.4	406.2
15°	551.6	534.3	520.5	503.2	484.2	465.9	449.3	434.0	419.4	406.0	394.7
17.5°	555.2	539.7	524.6	504.4	484.1	463.2	444.0	425.8	409.6	394.8	382.1
20°	554.9	539.2	522.8	503.5	481.9	459.0	437.7	417.4	399.0	382.1	368.4
22.5°	549.5	534.3	517.8	498.3	476.3	452.7	430.4	407.8	387.8	370.2	356.1
25°	543.7	524.6	507.3	487.7	466.8	444.9	421.2	396.8	375.9	357.5	341.7
27.5°	538.7	515.8	494.5	475.2	453.8	434.1	410.5	385.1	363.7	344.4	328.0
30°	530.6	506.4	480.6	459.5	438.8	418.3	396.7	373.6	350.2	330.5	314.1
32.5°	523.5	493.1	465.1	441.3	420.6	402.6	381.9	359.7	336.8	318.1	300.4
35°	515.8	479.4	450.2	422.2	401.5	381.9	365.5	345.5	322.8	302.9	287.1
37.5°	506.6	465.3	431.8	403.3	381.9	361.7	346.9	329.1	308.5	288.9	273.2
40°	496.3	450.9	412.3	383.0	359.9	339.7	327.3	311.4	293.9	274.5	259.9
42.5°	483.3	435.6	394.7	362.6	337.0	318.8	306.4	293.2	277.2	260.2	244.4
45°	466.9	416.5	373.6	339.7	314.5	296.8	283.8	274.1	261.3	245.5	230.5
47.5°	446.9	396.5	352.0	316.8	292.5	275.5	263.5	253.7	244.0	230.3	216.1
50°	420.4	373.6	330.9	295.0	269.2	252.8	242.0	234.3	225.4	214.3	201.3
52.5°	391.2	347.8	306.0	272.5	247.6	231.2	220.0	213.6	206.9	197.7	186.5
55°	357.4	322.0	282.2	249.4	225.1	208.9	200.0	193.7	188.1	181.1	171.7
57.5°	321.5	290.5	255.9	225.6	202.7	187.4	179.7	174.4	169.8	164.7	157.0
60°	283.8	261.9	229.1	201.3	181.3	168.7	161.3	156.4	152.1	148.0	142.2
62.5°	244.6	226.3	201.8	178.2	160.4	148.5	143.1	138.9	134.4	130.8	126.7
65°	204.7	194.3	177.3	155.2	138.8	129.0	123.8	120.4	118.2	114.1	110.8
67.5°	168.5	162.7	148.3	133.4	120.7	111.9	107.0	104.5	102.2	100.2	96.6
70°	134.1	129.9	121.6	111.0	101.1	93.5	89.9	89.2	86.0	84.0	82.2
72.5°	102.2	101.1	94.3	89.6	84.0	78.0	75.3	73.9	71.7	69.9	69.2
75°	72.6	74.2	72.1	69.7	67.0	62.2	59.8	59.1	57.1	56.6	55.7
77.5°	49.6	51.9	52.6	51.5	50.3	48.7	47.0	46.3	44.3	44.0	43.4
80°	31.2	34.6	35.9	35.7	35.1	35.3	33.3	33.2	32.3	31.7	32.3
82.5°	18.9	20.7	23.1	23.6	22.9	23.2	22.7	22.0	22.0	22.3	21.6
85°	10.3	10.5	11.5	12.3	13.2	13.9	13.2	13.3	13.2	13.2	12.6
87.5°	4.5	4.7	4.7	4.5	4.9	5.2	5.9	6.3	6.1	5.6	4.9
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: P243788

CATALOG NUMBER: S125RDR-H375D935-X4F0-XX-UDD-A-W

CANDELA DISTRIBUTION (continued):

	110°	115°	120°	125°	130°	135°	140°	145°	150°	155°	160°
0°	454.5	454.5	454.5	454.5	454.5	454.5	454.5	454.5	454.5	454.5	454.5
2.5°	445.1	443.9	441.7	439.9	435.8	432.9	432.5	432.7	432.3	432.0	431.8
5°	434.3	430.2	426.2	422.8	418.1	413.4	411.2	410.3	410.0	408.0	409.1
7.5°	422.8	416.5	411.8	405.3	399.7	395.8	392.0	390.2	389.8	387.1	386.4
10°	410.5	403.0	395.9	389.4	383.9	378.3	373.8	372.1	370.0	367.8	364.6
12.5°	398.5	389.1	381.3	374.1	366.6	360.2	356.6	354.3	351.6	349.6	348.5
15°	384.0	376.1	366.6	358.8	351.1	345.5	340.6	336.3	333.8	332.1	327.6
17.5°	371.1	360.6	351.6	344.2	335.7	329.4	324.4	320.8	316.5	313.2	310.3
20°	357.2	346.4	338.1	329.3	320.6	312.9	306.5	303.7	300.6	297.5	295.9
22.5°	342.2	332.9	323.5	314.3	305.1	296.8	292.8	288.7	286.0	282.9	280.8
25°	329.3	319.0	309.6	299.3	289.2	284.4	279.0	274.8	272.7	269.6	267.3
27.5°	315.4	305.5	294.3	283.7	277.7	269.4	265.8	262.6	259.7	256.6	255.0
30°	302.4	290.9	279.7	271.4	263.7	257.7	254.3	250.3	246.4	244.9	242.7
32.5°	288.7	276.3	266.5	258.2	251.8	244.6	241.3	238.1	234.3	232.5	230.5
35°	274.5	262.4	252.8	245.3	238.6	233.2	229.6	226.2	223.8	221.1	219.7
37.5°	259.5	249.1	239.9	232.3	226.2	221.8	217.3	214.6	211.4	208.9	207.8
40°	245.3	235.9	227.1	220.0	214.5	209.2	205.3	201.8	199.9	197.7	195.9
42.5°	232.5	222.7	215.2	207.8	202.7	197.7	193.7	191.2	187.8	186.9	184.4
45°	218.8	209.8	202.2	195.4	190.1	186.0	181.3	178.2	176.1	173.9	173.0
47.5°	204.9	196.6	189.6	183.3	177.9	173.2	169.6	166.3	164.0	162.0	160.9
50°	191.4	184.2	177.2	171.0	165.4	162.0	157.7	154.1	152.3	150.1	148.9
52.5°	177.2	171.2	163.6	158.4	153.2	148.7	144.4	142.0	140.2	138.4	137.5
55°	163.8	157.5	151.0	145.4	140.4	135.7	132.3	130.5	128.1	127.1	126.9
57.5°	150.1	143.6	138.2	133.2	127.4	123.8	120.7	118.6	116.6	115.7	115.7
60°	135.2	129.9	124.9	119.3	115.2	111.0	107.8	106.3	104.3	104.0	102.7
62.5°	121.5	116.6	111.7	106.5	102.7	98.6	96.2	94.3	93.2	91.7	90.3
65°	107.2	102.9	98.2	93.7	90.6	86.1	84.0	81.6	80.4	78.8	77.0
67.5°	93.5	89.4	85.1	80.9	78.4	74.1	72.6	69.7	68.8	67.0	65.4
70°	79.1	76.2	72.8	68.7	66.5	63.1	61.6	58.9	57.5	56.4	55.5
72.5°	66.7	64.0	60.0	57.3	54.6	52.4	50.1	48.8	47.6	46.7	46.5
75°	54.4	51.0	48.7	46.1	44.3	42.2	41.1	40.2	39.6	39.1	38.6
77.5°	41.6	40.2	37.8	35.3	33.9	33.0	32.3	31.9	31.4	31.2	30.6
80°	31.0	29.0	27.6	26.7	25.6	24.9	24.3	23.1	22.3	22.0	21.6
82.5°	20.5	20.0	18.9	18.0	17.1	16.9	16.4	16.0	15.9	15.9	15.7
85°	12.4	11.0	11.0	10.8	10.8	10.6	10.3	10.3	9.9	10.5	10.5
87.5°	5.0	5.0	4.7	4.7	4.9	4.5	4.3	4.3	4.3	4.1	4.3
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: P243788

CATALOG NUMBER: S125RDR-H375D935-X4F0-XX-UDD-A-W

CANDELA DISTRIBUTION (continued):

	165°	170°	175°	180°
0°	454.5	454.5	454.5	454.5
2.5°	431.8	430.9	431.1	430.0
5°	407.1	406.6	404.8	403.3
7.5°	384.6	382.2	382.1	380.6
10°	363.5	361.3	360.2	360.4
12.5°	345.1	342.8	342.8	341.3
15°	325.5	323.1	323.5	323.3
17.5°	309.2	307.6	306.4	305.3
20°	293.4	291.4	290.7	289.8
22.5°	278.8	277.3	277.5	277.5
25°	264.9	265.1	263.5	263.1
27.5°	252.7	252.3	251.9	251.2
30°	241.1	239.7	239.3	238.6
32.5°	229.2	229.1	227.6	228.2
35°	217.2	216.6	216.3	215.9
37.5°	206.0	204.9	204.7	204.4
40°	194.6	194.3	192.6	193.5
42.5°	182.4	181.7	181.7	181.7
45°	172.1	170.1	170.1	169.4
47.5°	160.6	159.8	159.5	158.2
50°	149.2	148.1	147.8	147.8
52.5°	137.5	137.3	137.7	137.0
55°	127.2	127.4	127.2	126.9
57.5°	116.1	115.2	115.2	115.3
60°	102.7	102.7	103.1	102.4
62.5°	89.9	89.6	88.3	87.9
65°	76.8	75.3	75.1	75.3
67.5°	65.1	64.5	63.6	63.8
70°	55.0	54.8	53.9	53.3
72.5°	46.0	46.0	45.4	45.4
75°	38.4	38.0	37.8	38.2
77.5°	29.6	28.7	29.0	28.5
80°	21.4	21.8	21.4	21.3
82.5°	15.9	15.5	15.7	15.5
85°	10.1	9.7	9.9	9.7
87.5°	4.1	4.3	4.3	4.0
90°	0.0	0.0	0.0	0.0

(END OF REPORT)