

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: P243690

Luminaire Tested: **S125DR-H375D940-X4F0-XX-UDD-A-W**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P243690
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1802-639-61)
Test Lab: INNOVATION CENTER
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: NEO-RAY
Catalog Number: S125DR-H375D940-X4F0-XX-UDD-A-W
Description: DEFINE 5 DIRECT RECESSED WITH ASYMMETRIC FLUSH DIFFUSER.
HIGH PERFORMANCE LIGHT ENGINE
Light Source: (184) 4000K CCT, 90 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

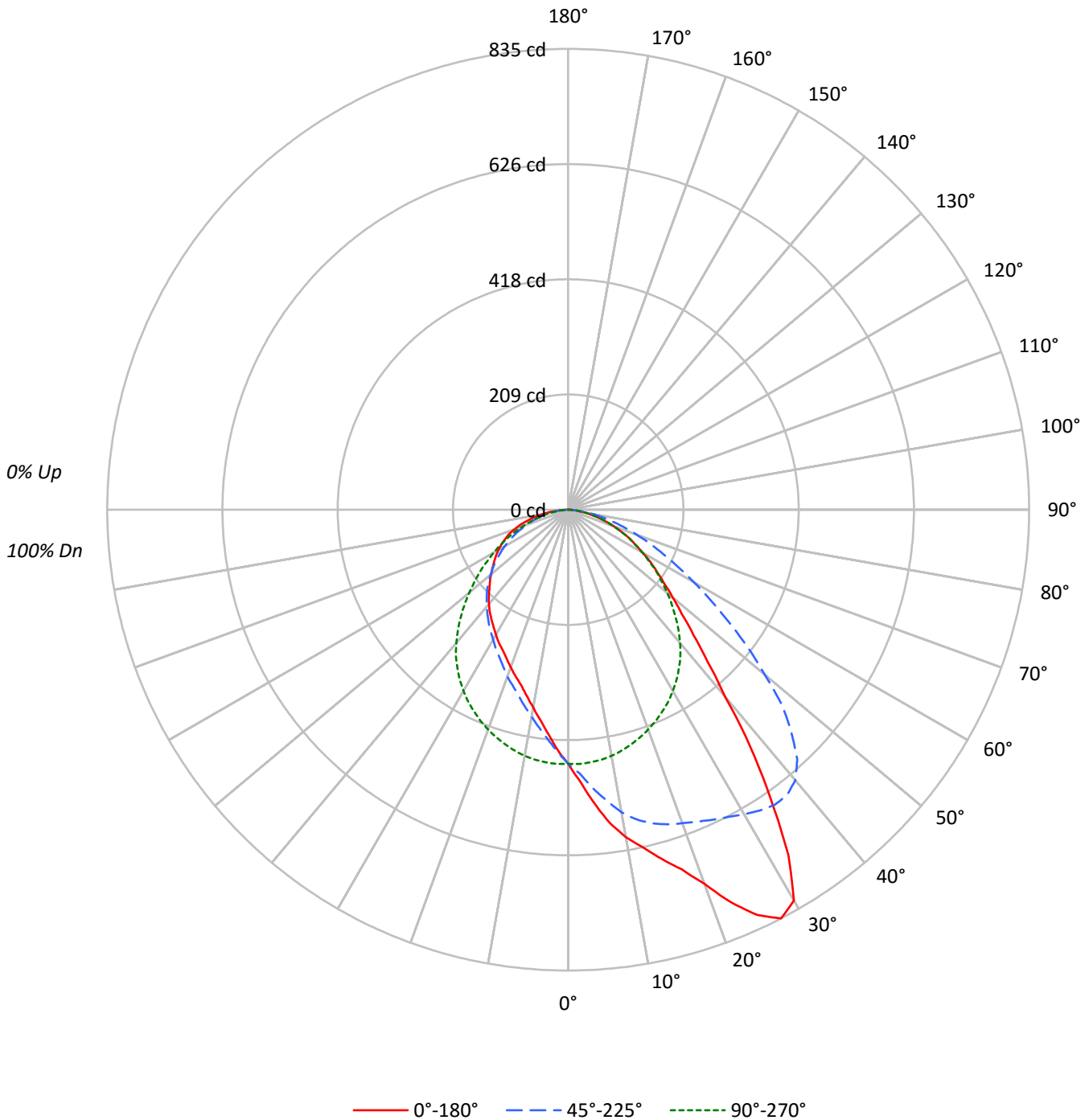
Lumens per Lamp: N/A
Luminaire Lumens: 1311.8 lumens
Efficiency: N/A
Efficacy: 117.1 lumens/watt
Spacing Criteria (0/90/45): 1.43 / 1.22 / 1.53
Luminous Opening: Rectangular (W 3.88' x L: 0.39' x H: 0')
CIE Type: Direct

Input Watts (W): 11.2
Input Voltage (V): 120
Input Current (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: P243690
CATALOG NUMBER: S125DR-H375D940-X4F0-XX-UDD-A-W

Luminous Intensity Polar Plot





TEST NUMBER: P243690

CATALOG NUMBER: S125DR-H375D940-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	97	90	84	79	87	82	78		84	79	76		81	77	74	72
3	92	82	74	68	89	80	73	67	77	71	66		74	69	65		72	67	63	61
4	84	73	64	58	82	71	63	57	69	62	56		66	61	56		64	59	55	53
5	78	65	56	50	75	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	40
7	67	53	45	39	65	53	44	39	51	44	38		50	43	38		48	42	38	36
8	62	49	40	35	60	48	40	35	47	40	34		46	39	34		44	38	34	32
9	58	45	37	31	57	44	36	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°	3272	3272	3272
5°	3801	3278	2914
10°	4348	3268	2629
15°	4820	3238	2422
20°	5458	3206	2299
25°	6355	3164	2201
30°	6709	3113	2148
35°	5548	3037	2102
40°	4104	2926	2071
45°	3226	2767	2026
50°	2732	2587	2018
55°	2432	2410	2026
60°	2208	2213	2070
65°	2047	2028	2127
70°	1839	1814	2140
75°	1568	1593	2112
80°	1285	1306	1973
85°	881	930	1672



TEST NUMBER: P243690

CATALOG NUMBER: S125DR-H375D940-X4F0-XX-UDD-A-W

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	44.5	3.4
10°-20°	132.9	10.1
20°-30°	216.0	16.5
30°-40°	262.8	20.0
40°-50°	240.5	18.3
50°-60°	192.4	14.7
60°-70°	134.0	10.2
70°-80°	71.2	5.4
80°-90°	17.5	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°	393.3	30.0
0°-40°	656.1	50.0
0°-60°	1089.0	83.0
0°-90°	1311.8	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1311.8	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	460	460	460	460	460	
5°	533	506	460	418	408	53
15°	655	588	440	348	329	188
25°	810	620	404	295	281	370
35°	639	653	350	251	242	396
45°	321	572	275	208	202	253
55°	196	355	194	159	164	177
65°	122	190	121	106	126	120
75°	57	84	58	56	77	62
85°	11	16	11	13	20	14
90°	0	0	0	0	0	



TEST NUMBER: P243690

CATALOG NUMBER: S125DR-H375D940-X4F0-XX-UDD-A-W

CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	460.3	460.3	460.3	460.3	460.3	460.3	460.3	460.3	460.3	460.3	460.3
2.5°	492.7	490.7	490.1	490.3	489.2	488.3	486.0	483.0	481.0	478.4	477.6
5°	532.7	527.6	528.6	527.1	524.6	521.5	518.7	514.2	509.9	505.8	500.4
7.5°	571.9	570.9	568.3	568.0	564.0	558.6	553.0	546.9	537.7	531.4	524.1
10°	602.5	604.3	600.6	600.8	593.9	588.5	583.6	575.6	565.3	556.8	546.1
12.5°	627.1	627.9	627.3	624.9	620.4	611.3	606.6	598.2	587.0	575.2	567.0
15°	655.1	653.1	649.9	646.9	640.4	633.8	624.1	614.2	600.1	588.3	576.3
17.5°	683.1	682.7	678.8	672.5	664.3	655.7	641.1	628.4	613.3	597.8	582.9
20°	721.6	719.5	713.7	706.4	691.3	679.2	661.1	643.7	623.9	604.5	587.2
22.5°	769.7	763.0	757.2	746.0	728.6	707.6	687.2	662.0	634.4	611.6	590.0
25°	810.4	807.4	801.3	788.7	769.0	743.6	713.3	684.8	650.1	619.8	591.7
27.5°	835.0	833.7	830.0	818.2	801.8	776.6	744.3	707.9	668.5	627.7	593.9
30°	817.5	817.7	819.7	818.4	811.1	794.9	766.2	729.6	684.0	637.0	594.5
32.5°	742.1	747.1	763.2	770.8	781.1	784.5	771.6	741.2	697.1	646.3	596.3
35°	639.4	651.8	662.6	685.0	711.7	733.5	746.2	736.3	702.5	652.7	597.3
37.5°	542.8	541.8	558.6	582.9	611.3	648.4	684.4	704.2	693.2	651.4	595.6
40°	442.3	450.9	461.4	482.8	516.1	561.8	604.7	647.1	662.4	639.8	589.0
42.5°	373.7	377.6	388.0	404.8	428.7	475.4	517.7	572.2	611.4	614.1	574.7
45°	321.0	325.3	328.3	344.9	367.1	398.5	442.0	496.8	549.5	572.2	551.3
47.5°	278.8	281.3	287.8	297.9	312.4	340.2	375.0	424.8	482.1	526.3	519.2
50°	247.1	249.0	254.2	259.8	271.8	292.3	320.3	361.2	416.2	464.6	480.4
52.5°	219.1	221.5	224.2	229.6	240.6	254.4	277.2	309.1	360.2	409.7	434.9
55°	196.3	197.3	200.1	204.2	212.6	223.0	241.1	270.1	305.9	355.2	389.9
57.5°	176.6	175.6	178.6	181.4	187.0	195.8	208.9	230.3	264.5	306.5	342.7
60°	155.3	156.2	158.5	160.7	164.6	172.3	182.5	199.7	224.7	262.4	299.4
62.5°	137.0	137.7	138.3	141.5	145.0	150.4	158.8	172.8	193.5	224.7	257.8
65°	121.7	120.4	121.1	123.4	126.2	130.6	138.5	148.8	164.2	189.6	217.1
67.5°	103.8	104.1	104.3	105.6	108.1	112.4	118.0	126.4	139.0	159.0	183.1
70°	88.5	88.7	88.8	90.0	92.0	94.4	98.4	104.9	115.7	131.2	150.1
72.5°	72.8	73.5	73.5	74.5	76.0	77.3	81.0	86.4	94.6	106.9	122.8
75°	57.1	58.4	58.8	59.9	61.2	61.6	64.4	68.7	73.9	84.0	96.5
77.5°	44.4	44.4	45.2	46.5	46.5	47.6	50.6	52.4	56.6	63.5	73.0
80°	31.4	31.9	31.9	32.3	33.0	34.0	35.3	37.0	40.5	45.5	50.6
82.5°	20.5	20.7	20.9	21.8	21.5	22.4	23.0	25.0	26.7	29.1	32.3
85°	10.8	10.8	11.0	11.6	12.1	12.3	12.7	13.6	14.9	16.1	17.9
87.5°	4.5	4.3	4.3	4.7	4.7	4.9	5.0	5.4	6.2	6.2	6.9
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: P243690

CATALOG NUMBER: S125DR-H375D940-X4F0-XX-UDD-A-W

CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°	95°	100°	105°
0°	460.3	460.3	460.3	460.3	460.3	460.3	460.3	460.3	460.3	460.3	460.3
2.5°	477.1	475.6	472.9	470.7	467.9	465.9	463.8	461.2	458.6	455.8	452.8
5°	496.1	491.6	486.6	481.5	475.6	470.7	465.5	459.5	454.5	448.9	442.9
7.5°	517.9	510.1	501.3	491.4	482.1	473.7	465.1	456.9	449.4	441.0	432.8
10°	539.0	525.4	514.4	500.9	487.7	475.4	463.6	452.8	442.0	431.5	421.4
12.5°	553.4	537.9	524.1	508.6	493.1	477.6	462.1	447.2	434.3	421.6	411.0
15°	563.3	552.5	534.2	515.5	495.2	475.0	457.5	440.1	424.8	410.1	397.4
17.5°	569.4	555.4	537.5	517.9	495.5	474.4	453.4	432.6	415.1	399.2	384.9
20°	571.1	554.7	536.0	515.7	493.3	470.1	446.4	423.9	404.8	386.7	372.2
22.5°	569.4	550.4	530.4	510.7	487.1	463.6	438.8	414.2	392.3	373.7	358.4
25°	566.6	543.7	522.8	499.5	477.6	455.2	429.6	403.5	380.7	361.3	344.2
27.5°	563.1	536.8	511.0	488.1	464.4	442.3	418.8	392.1	368.4	347.2	331.1
30°	559.0	527.6	499.1	471.8	449.4	427.4	404.5	379.3	355.4	335.0	317.7
32.5°	554.3	517.9	484.3	455.0	431.1	410.8	389.3	365.3	341.7	319.9	304.8
35°	547.8	504.7	468.5	436.7	411.9	389.9	371.0	350.0	326.6	306.3	290.6
37.5°	540.1	492.9	452.4	418.1	391.0	368.4	351.1	333.9	312.1	292.5	277.3
40°	529.9	478.7	435.4	398.3	369.4	347.2	330.2	315.4	297.3	277.5	263.9
42.5°	516.4	463.1	416.2	376.6	348.6	324.9	309.1	295.6	280.1	263.0	249.5
45°	501.1	445.1	394.7	355.9	325.5	302.9	287.4	275.3	263.5	248.2	235.7
47.5°	477.2	424.0	375.3	332.4	302.5	280.7	266.2	254.6	245.8	233.7	221.4
50°	448.9	400.2	352.4	309.3	279.0	257.9	244.1	234.0	226.6	217.3	207.9
52.5°	417.7	373.3	327.2	286.9	256.6	236.7	222.1	213.1	208.3	200.8	193.5
55°	381.3	343.0	300.1	263.4	233.7	213.3	200.8	194.5	189.1	185.3	178.8
57.5°	344.7	312.4	274.2	237.8	210.5	192.4	181.2	174.1	170.2	167.6	162.9
60°	304.8	279.4	244.3	212.8	188.5	171.3	161.4	155.7	152.1	150.6	147.4
62.5°	266.7	247.3	215.4	189.1	167.4	152.3	142.4	137.7	135.5	133.8	132.0
65°	229.2	213.9	188.7	164.1	145.8	132.1	124.3	120.6	118.9	117.0	116.8
67.5°	195.4	181.4	161.3	141.1	125.8	114.2	107.3	103.6	101.7	101.9	101.0
70°	162.2	151.4	134.9	118.5	105.5	96.3	89.8	87.3	86.6	86.4	85.7
72.5°	131.2	125.0	110.7	96.9	86.6	79.5	74.3	72.2	71.3	70.9	70.9
75°	104.0	99.5	87.2	76.7	68.9	63.1	59.5	58.0	56.7	57.5	56.9
77.5°	78.0	74.3	65.9	58.4	52.4	47.6	45.9	44.6	43.9	43.7	44.4
80°	54.9	52.6	47.4	41.4	37.0	34.2	33.0	31.9	31.4	31.0	31.4
82.5°	35.3	34.0	30.2	26.7	24.1	22.6	21.5	20.9	20.0	20.2	20.5
85°	19.2	18.9	16.4	15.3	12.9	12.7	11.9	11.4	11.6	11.2	11.8
87.5°	7.8	7.5	6.9	6.3	5.6	5.0	4.7	5.0	4.5	5.0	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: P243690

CATALOG NUMBER: S125DR-H375D940-X4F0-XX-UDD-A-W

CANDELA DISTRIBUTION (continued):

	110°	115°	120°	125°	130°	135°	140°	145°	150°	155°	160°
0°	460.3	460.3	460.3	460.3	460.3	460.3	460.3	460.3	460.3	460.3	460.3
2.5°	451.3	449.2	446.8	444.6	441.2	439.0	437.9	438.2	436.9	436.6	436.4
5°	439.4	434.7	430.2	426.5	422.6	418.1	414.9	414.0	413.6	412.7	410.6
7.5°	427.0	421.1	415.3	409.9	404.3	399.0	395.9	393.3	391.8	389.1	388.6
10°	414.0	406.7	400.5	392.7	386.0	380.6	376.5	374.2	372.9	370.5	368.4
12.5°	401.5	393.8	384.3	377.2	370.1	364.5	359.8	356.1	355.2	352.0	350.3
15°	388.0	378.7	370.1	361.9	355.2	348.1	345.3	341.9	338.6	335.8	335.2
17.5°	375.1	364.0	355.6	347.5	339.3	334.1	330.4	328.1	325.5	324.0	321.4
20°	359.7	350.5	341.2	333.7	326.6	322.1	317.1	315.1	313.2	309.6	308.5
22.5°	346.6	335.6	327.7	320.3	313.9	307.6	304.0	302.0	299.2	297.3	295.8
25°	333.0	323.8	313.9	306.5	301.1	294.7	292.3	289.7	287.2	285.6	284.1
27.5°	319.7	309.6	301.6	294.1	288.5	284.1	280.7	277.9	276.2	274.9	274.0
30°	305.9	296.6	289.1	282.2	275.9	272.1	269.0	267.8	266.0	265.0	263.5
32.5°	293.4	283.9	276.8	270.8	265.2	261.5	259.6	257.9	256.1	254.4	254.2
35°	279.2	271.0	264.5	257.9	253.8	250.8	248.8	247.1	245.6	244.3	243.6
37.5°	266.7	258.9	251.6	246.9	242.4	239.8	237.6	237.0	235.5	235.7	234.6
40°	253.3	246.2	240.0	235.4	232.4	229.6	228.1	226.2	225.3	225.5	224.5
42.5°	240.2	233.7	228.1	223.8	220.6	218.6	217.3	215.8	214.6	213.9	213.7
45°	227.0	221.2	216.5	212.2	209.6	207.7	206.1	204.2	203.3	202.9	202.7
47.5°	213.9	208.7	203.6	200.6	198.2	196.5	194.9	193.4	192.6	192.1	191.1
50°	200.5	195.2	191.7	187.9	185.9	183.7	181.8	181.0	180.1	179.9	180.9
52.5°	186.5	182.3	179.2	176.2	173.8	171.3	169.5	168.5	169.1	169.1	170.2
55°	173.2	168.9	165.9	163.5	160.9	158.6	156.8	156.8	156.8	157.9	159.4
57.5°	158.5	154.7	152.5	149.7	147.3	145.8	144.5	144.3	145.0	146.9	148.6
60°	143.5	140.9	138.5	136.2	133.8	132.7	132.5	132.1	133.3	135.1	138.7
62.5°	128.8	127.1	124.1	123.0	120.9	119.6	119.6	120.0	121.7	124.7	127.8
65°	114.6	112.2	109.9	108.8	107.5	106.4	106.4	107.9	110.3	113.1	117.0
67.5°	100.0	98.0	96.5	95.4	93.9	93.3	93.9	95.6	98.5	101.3	105.5
70°	84.4	84.0	82.7	81.2	80.4	80.4	81.0	82.9	85.1	89.4	92.9
72.5°	70.0	70.0	69.2	68.3	67.8	68.3	68.7	70.6	73.4	77.1	81.0
75°	56.9	56.4	55.8	55.4	55.2	55.6	56.2	57.7	61.0	64.6	67.8
77.5°	44.0	43.7	43.1	43.5	43.5	43.7	45.4	47.0	48.9	51.7	55.1
80°	31.7	31.9	31.4	31.2	32.1	32.5	33.8	35.1	36.4	39.6	42.0
82.5°	20.9	21.3	21.1	21.5	21.8	21.8	23.3	24.6	25.8	28.0	29.9
85°	11.9	12.1	12.1	12.7	13.1	12.9	14.2	14.9	15.5	17.2	18.3
87.5°	5.2	5.4	5.6	5.6	5.6	6.3	6.5	6.9	7.1	7.5	8.0
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: P243690

CATALOG NUMBER: S125DR-H375D940-X4F0-XX-UDD-A-W

CANDELA DISTRIBUTION (continued):

	165°	170°	175°	180°
0°	460.3	460.3	460.3	460.3
2.5°	434.7	434.5	435.4	436.0
5°	409.3	408.7	408.0	408.4
7.5°	386.7	385.2	384.9	384.9
10°	366.8	365.3	364.9	364.3
12.5°	349.8	347.5	346.6	345.7
15°	333.7	333.3	331.3	329.2
17.5°	319.0	319.5	317.5	316.5
20°	306.7	305.0	304.2	303.9
22.5°	294.1	292.8	292.8	291.5
25°	282.9	281.8	282.0	280.7
27.5°	272.5	272.3	272.1	271.8
30°	262.8	262.0	261.3	261.7
32.5°	253.5	252.3	251.8	251.6
35°	243.8	243.4	242.6	242.3
37.5°	234.2	234.4	233.5	233.3
40°	224.0	223.8	223.6	223.2
42.5°	213.1	212.6	213.0	212.8
45°	202.3	201.8	202.1	201.6
47.5°	191.7	192.1	192.1	192.2
50°	181.2	182.0	182.0	182.5
52.5°	171.5	173.0	173.0	172.8
55°	161.1	162.8	163.3	163.5
57.5°	151.2	152.9	154.5	154.9
60°	140.5	143.5	145.2	145.6
62.5°	131.0	133.8	136.1	136.2
65°	120.4	123.7	125.8	126.5
67.5°	109.6	112.2	115.0	116.1
70°	97.2	100.4	102.3	103.0
72.5°	84.4	87.9	90.3	90.7
75°	72.0	74.7	76.5	76.9
77.5°	58.0	60.7	62.3	62.7
80°	44.0	46.3	47.4	48.2
82.5°	31.2	32.7	33.2	34.0
85°	19.2	20.3	20.5	20.5
87.5°	8.4	8.6	8.6	9.0
90°	0.0	0.0	0.0	0.0

(END OF REPORT)