

Cooper Lighting Solutions Photometric Lab
1121 Highway 74 South
Peachtree City, GA 30269



Scaled data based on original data using
LM-79-2024 Approved Method: Electrical and Photometric Measurements of Solid-
State Lighting Products

Test Report Prepared for
Cooper Lighting Solutions

Brand: NEO-RAY

Report Number: P243660

Luminaire Tested: S125DRP-H375D927-X4F0-XX-UDD-A-W

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-2024
Report Number: P243660
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
Product Line: NEO-RAY
Catalog Number: S125DRP-H375D927-X4F0-XX-UDD-A-W
Description: DEFINE 5 DIRECT RECESSED WITH ASYMMETRIC FLUSH DIFFUSER.
HIGH PERFORMANCE LIGHT ENGINE
Light Source: (184) 2700K CCT, 90 CRI LEDS
Ballast/Driver: -

Summary

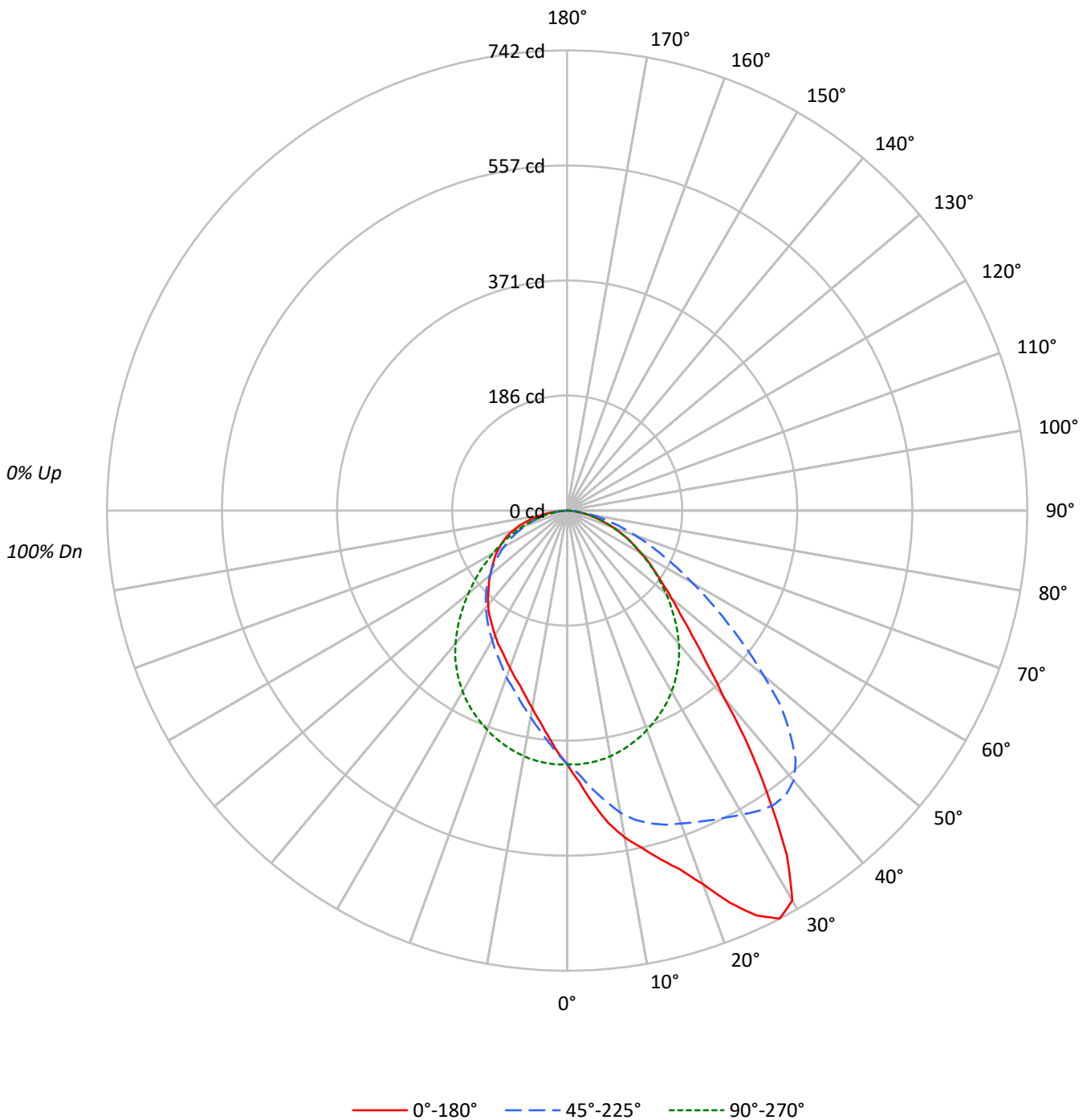
Lumens per Lamp: N/A
Luminaire Lumens: 1165.3 lumens
Efficiency: N/A
Efficacy: 104.0 lumens/watt
Spacing Criteria (0/90/45): 1.43 / 1.22 / 1.53
Luminous Opening: Rectangular (W 3.88' x L: 0.39' x H: 0')
CIE Type: Direct

Input Watts (W): 11.2
Input Voltage (V): 120
Input Current (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: 24 FT

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CATALOG NUMBER: S125DRP-H375D927-X4F0-XX-UDD-A-W

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	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100					100			
1	109	105	101	97	107	103	99	96	99	96	93	95	92	90	91	89	87	85					85			
2	100	92	86	80	97	90	84	79	87	82	78	84	79	76	81	77	74	72					72			
3	92	82	74	68	89	80	73	67	77	71	66	74	69	65	72	67	63	61					61			
4	84	73	64	58	82	71	63	57	69	62	56	66	61	56	64	59	55	53					53			
5	78	65	56	50	75	64	56	50	62	55	49	60	54	49	58	53	48	46					46			
6	72	59	50	44	70	58	50	44	56	49	43	54	48	43	53	47	43	40					40			
7	67	53	45	39	65	53	44	39	51	44	38	50	43	38	48	42	38	36					36			
8	62	49	40	35	60	48	40	35	47	40	34	46	39	34	44	38	34	32					32			
9	58	45	37	31	57	44	36	31	43	36	31	42	36	31	41	35	31	29					29			
10	54	41	34	28	53	41	33	28	40	33	28	39	33	28	38	32	28	26					26			

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°	135°	180°
0°	2906	2906	2906	2906	2906
5°	3376	3206	2912	2650	2588
10°	3863	3570	2903	2440	2336
15°	4282	3845	2877	2275	2152
20°	4848	4062	2848	2165	2041
25°	5646	4319	2811	2053	1956
30°	5960	4644	2765	1984	1908
35°	4929	5031	2698	1933	1867
40°	3646	5274	2600	1892	1840
45°	2867	5110	2459	1854	1800
50°	2427	4563	2299	1805	1793
55°	2161	3909	2141	1746	1799
60°	1962	3313	1966	1676	1838
65°	1818	2834	1801	1589	1890
70°	1633	2423	1613	1486	1901
75°	1392	2049	1417	1357	1876
80°	1142	1658	1162	1183	1752
85°	783	1166	824	930	1484

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 45°
 Vertical Angle: 45°
 Luminance: 5110 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	39.5	3.4
10°-20°	118.0	10.1
20°-30°	191.9	16.5
30°-40°	233.5	20.0
40°-50°	213.6	18.3
50°-60°	171.0	14.7
60°-70°	119.1	10.2
70°-80°	63.3	5.4
80°-90°	15.5	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°	349.4	30.0
0°-40°	582.9	50.0
0°-60°	967.5	83.0
0°-90°	1165.3	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1165.3	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	409	409	409	409	409	
5°	473	449	408	371	363	47
15°	582	523	391	309	292	167
25°	720	551	358	262	249	329
35°	568	580	311	223	215	352
45°	285	508	245	184	179	225
55°	174	316	173	141	145	157
65°	108	168	107	94	112	106
75°	51	75	52	49	68	55
85°	10	14	10	11	18	12
90°	0	0	0	0	0	



TEST NUMBER: P243660

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CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	408.9	408.9	408.9	408.9	408.9	408.9	408.9	408.9	408.9	408.9	408.9
2.5°	437.7	435.9	435.4	435.6	434.6	433.8	431.8	429.1	427.3	425.0	424.3
5°	473.2	468.7	469.6	468.2	466.1	463.3	460.8	456.8	453.0	449.3	444.5
7.5°	508.0	507.2	504.9	504.6	501.1	496.3	491.3	485.8	477.7	472.1	465.6
10°	535.2	536.9	533.6	533.7	527.6	522.8	518.5	511.4	502.2	494.6	485.2
12.5°	557.1	557.8	557.3	555.1	551.2	543.0	538.9	531.4	521.5	511.0	503.7
15°	582.0	580.2	577.3	574.7	568.9	563.1	554.5	545.7	533.1	522.6	512.0
17.5°	606.9	606.5	603.0	597.4	590.1	582.5	569.6	558.3	544.8	531.1	517.8
20°	641.0	639.2	634.1	627.6	614.2	603.4	587.3	571.9	554.3	537.1	521.6
22.5°	683.8	677.8	672.7	662.7	647.3	628.6	610.5	588.1	563.6	543.4	524.1
25°	719.9	717.3	711.8	700.7	683.1	660.6	633.7	608.4	577.5	550.7	525.6
27.5°	741.8	740.7	737.4	726.9	712.3	689.9	661.2	628.9	593.9	557.6	527.6
30°	726.2	726.4	728.2	727.1	720.6	706.2	680.6	648.1	607.7	565.9	528.1
32.5°	659.3	663.7	678.0	684.8	693.9	696.9	685.5	658.4	619.3	574.2	529.8
35°	568.1	579.0	588.6	608.5	632.2	651.6	662.9	654.1	624.1	579.8	530.6
37.5°	482.2	481.3	496.3	517.8	543.0	576.0	608.0	625.6	615.8	578.7	529.1
40°	393.0	400.6	409.9	428.9	458.5	499.1	537.2	574.9	588.5	568.4	523.3
42.5°	332.0	335.4	344.7	359.6	380.9	422.3	460.0	508.4	543.2	545.5	510.5
45°	285.2	289.0	291.7	306.4	326.1	354.0	392.6	441.4	488.1	508.4	489.8
47.5°	247.7	249.9	255.7	264.6	277.6	302.3	333.1	377.4	428.3	467.6	461.3
50°	219.5	221.2	225.8	230.8	241.4	259.7	284.5	320.8	369.8	412.7	426.8
52.5°	194.7	196.8	199.1	203.9	213.7	226.0	246.2	274.6	320.0	364.0	386.3
55°	174.4	175.3	177.7	181.4	188.9	198.1	214.2	239.9	271.8	315.5	346.4
57.5°	156.9	156.0	158.7	161.2	166.1	173.9	185.5	204.6	235.0	272.3	304.4
60°	138.0	138.8	140.8	142.8	146.2	153.0	162.2	177.4	199.6	233.1	266.0
62.5°	121.7	122.4	122.9	125.7	128.8	133.6	141.1	153.5	171.9	199.6	229.0
65°	108.1	106.9	107.6	109.6	112.1	116.1	123.0	132.2	145.9	168.5	192.8
67.5°	92.2	92.5	92.7	93.8	96.0	99.8	104.8	112.3	123.5	141.3	162.7
70°	78.6	78.8	78.9	79.9	81.7	83.9	87.4	93.2	102.8	116.6	133.3
72.5°	64.7	65.3	65.3	66.2	67.5	68.6	72.0	76.8	84.1	95.0	109.1
75°	50.7	51.9	52.2	53.2	54.4	54.7	57.2	61.0	65.7	74.6	85.7
77.5°	39.5	39.5	40.1	41.3	41.3	42.3	44.9	46.6	50.2	56.4	64.8
80°	27.9	28.4	28.4	28.7	29.3	30.2	31.3	32.8	36.0	40.5	44.9
82.5°	18.2	18.4	18.6	19.4	19.1	19.9	20.4	22.2	23.7	25.9	28.7
85°	9.6	9.6	9.8	10.3	10.8	10.9	11.3	12.1	13.3	14.3	15.9
87.5°	4.0	3.8	3.8	4.1	4.1	4.3	4.5	4.8	5.5	5.5	6.1
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0



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CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°	95°	100°	105°
0°	408.9	408.9	408.9	408.9	408.9	408.9	408.9	408.9	408.9	408.9	408.9
2.5°	423.8	422.5	420.2	418.2	415.7	413.9	412.0	409.7	407.4	404.9	402.3
5°	440.7	436.7	432.3	427.8	422.5	418.2	413.5	408.2	403.7	398.8	393.5
7.5°	460.1	453.2	445.4	436.6	428.3	420.8	413.2	405.9	399.3	391.8	384.5
10°	478.9	466.8	457.0	445.0	433.3	422.3	411.9	402.3	392.6	383.4	374.4
12.5°	491.6	477.9	465.6	451.8	438.1	424.3	410.5	397.3	385.8	374.6	365.1
15°	500.4	490.8	474.5	458.0	439.9	422.0	406.4	391.0	377.4	364.3	353.0
17.5°	505.9	493.4	477.5	460.1	440.2	421.5	402.8	384.3	368.8	354.7	341.9
20°	507.4	492.8	476.2	458.1	438.2	417.7	396.6	376.6	359.6	343.6	330.6
22.5°	505.9	489.0	471.2	453.7	432.8	411.9	389.8	367.9	348.5	332.0	318.4
25°	503.4	483.0	464.4	443.7	424.3	404.4	381.7	358.5	338.3	321.0	305.8
27.5°	500.2	476.9	454.0	433.6	412.5	393.0	372.1	348.4	327.3	308.4	294.1
30°	496.6	468.7	443.4	419.2	399.3	379.7	359.3	336.9	315.7	297.6	282.2
32.5°	492.5	460.1	430.3	404.2	383.0	364.9	345.9	324.5	303.6	284.2	270.8
35°	486.7	448.3	416.2	388.0	365.9	346.4	329.6	310.9	290.2	272.1	258.2
37.5°	479.9	437.9	401.9	371.4	347.4	327.3	311.9	296.6	277.2	259.8	246.4
40°	470.7	425.3	386.8	353.8	328.1	308.4	293.3	280.2	264.1	246.6	234.5
42.5°	458.8	411.4	369.8	334.6	309.7	288.7	274.6	262.6	248.9	233.6	221.7
45°	445.2	395.5	350.7	316.2	289.2	269.1	255.3	244.6	234.1	220.5	209.4
47.5°	424.0	376.7	333.4	295.3	268.8	249.4	236.4	226.2	218.4	207.6	196.7
50°	398.8	355.5	313.0	274.7	247.9	229.1	216.9	207.9	201.3	193.0	184.7
52.5°	371.1	331.6	290.7	254.8	228.0	210.2	197.3	189.4	185.0	178.4	171.9
55°	338.7	304.8	266.6	234.0	207.6	189.5	178.4	172.8	168.0	164.6	158.8
57.5°	306.3	277.6	243.6	211.2	187.0	170.9	161.0	154.7	151.2	148.9	144.8
60°	270.8	248.2	217.0	189.0	167.5	152.2	143.4	138.3	135.1	133.8	131.0
62.5°	236.9	219.7	191.3	168.0	148.7	135.3	126.5	122.4	120.4	118.9	117.2
65°	203.6	190.0	167.6	145.7	129.5	117.4	110.4	107.1	105.6	104.0	103.8
67.5°	173.6	161.2	143.3	125.4	111.8	101.5	95.3	92.0	90.4	90.5	89.7
70°	144.1	134.5	119.9	105.3	93.7	85.6	79.8	77.6	76.9	76.8	76.1
72.5°	116.6	111.1	98.3	86.1	76.9	70.6	66.0	64.2	63.3	63.0	63.0
75°	92.4	88.4	77.4	68.1	61.2	56.0	52.9	51.6	50.4	51.1	50.6
77.5°	69.3	66.0	58.5	51.9	46.6	42.3	40.8	39.6	39.0	38.8	39.5
80°	48.7	46.8	42.1	36.8	32.8	30.3	29.3	28.4	27.9	27.5	27.9
82.5°	31.3	30.2	26.9	23.7	21.4	20.1	19.1	18.6	17.7	17.9	18.2
85°	17.1	16.7	14.6	13.6	11.4	11.3	10.6	10.1	10.3	9.9	10.4
87.5°	7.0	6.6	6.1	5.6	5.0	4.5	4.1	4.5	4.0	4.5	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



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CANDELA DISTRIBUTION (continued):

	110°	115°	120°	125°	130°	135°	140°	145°	150°	155°	160°
0°	408.9	408.9	408.9	408.9	408.9	408.9	408.9	408.9	408.9	408.9	408.9
2.5°	400.9	399.1	396.9	395.0	392.0	390.0	389.0	389.3	388.2	387.8	387.7
5°	390.3	386.2	382.2	378.9	375.4	371.4	368.6	367.8	367.4	366.6	364.8
7.5°	379.4	374.1	368.9	364.1	359.1	354.5	351.7	349.4	348.0	345.7	345.2
10°	367.8	361.3	355.8	348.9	342.9	338.1	334.4	332.4	331.3	329.1	327.3
12.5°	356.7	349.9	341.4	335.1	328.8	323.8	319.7	316.4	315.5	312.7	311.2
15°	344.7	336.4	328.8	321.5	315.5	309.2	306.7	303.8	300.8	298.3	297.8
17.5°	333.3	323.3	315.9	308.7	301.4	296.8	293.5	291.5	289.2	287.8	285.5
20°	319.5	311.4	303.1	296.5	290.2	286.2	281.7	279.9	278.2	275.1	274.1
22.5°	307.9	298.1	291.2	284.5	278.9	273.3	270.1	268.3	265.8	264.1	262.8
25°	295.8	287.7	278.9	272.3	267.5	261.8	259.7	257.3	255.2	253.7	252.4
27.5°	284.0	275.1	267.9	261.3	256.3	252.4	249.4	246.9	245.4	244.2	243.4
30°	271.8	263.5	256.8	250.7	245.1	241.8	238.9	237.9	236.3	235.4	234.1
32.5°	260.7	252.2	245.9	240.6	235.6	232.3	230.6	229.1	227.5	226.0	225.8
35°	248.1	240.8	235.0	229.1	225.5	222.8	221.0	219.5	218.2	217.0	216.4
37.5°	236.9	230.0	223.5	219.4	215.4	213.1	211.1	210.6	209.3	209.4	208.4
40°	225.0	218.7	213.2	209.1	206.4	203.9	202.6	201.0	200.1	200.3	199.5
42.5°	213.4	207.6	202.6	198.8	196.0	194.2	193.0	191.7	190.7	190.0	189.9
45°	201.6	196.5	192.3	188.5	186.2	184.5	183.1	181.4	180.6	180.2	180.1
47.5°	190.0	185.4	180.9	178.2	176.1	174.6	173.1	171.8	171.1	170.6	169.8
50°	178.1	173.4	170.3	167.0	165.1	163.2	161.5	160.8	160.0	159.8	160.7
52.5°	165.6	162.0	159.2	156.5	154.4	152.2	150.6	149.7	150.2	150.2	151.2
55°	153.9	150.1	147.4	145.2	142.9	140.9	139.3	139.3	139.3	140.3	141.6
57.5°	140.8	137.5	135.5	133.0	130.8	129.5	128.3	128.2	128.8	130.5	132.0
60°	127.5	125.2	123.0	121.0	118.9	117.9	117.7	117.4	118.4	120.0	123.2
62.5°	114.4	112.9	110.3	109.3	107.4	106.3	106.3	106.6	108.1	110.8	113.6
65°	101.8	99.7	97.7	96.7	95.5	94.5	94.5	95.8	98.0	100.5	104.0
67.5°	88.9	87.0	85.7	84.7	83.4	82.9	83.4	84.9	87.5	90.0	93.7
70°	74.9	74.6	73.5	72.1	71.5	71.5	72.0	73.6	75.6	79.4	82.6
72.5°	62.2	62.2	61.5	60.7	60.2	60.7	61.0	62.7	65.2	68.5	72.0
75°	50.6	50.1	49.6	49.2	49.1	49.4	49.9	51.2	54.2	57.4	60.2
77.5°	39.1	38.8	38.3	38.6	38.6	38.8	40.3	41.8	43.4	45.9	48.9
80°	28.2	28.4	27.9	27.7	28.5	28.9	30.0	31.2	32.3	35.2	37.3
82.5°	18.6	18.9	18.7	19.1	19.4	19.4	20.7	21.9	22.9	24.9	26.5
85°	10.6	10.8	10.8	11.3	11.6	11.4	12.6	13.3	13.8	15.3	16.2
87.5°	4.6	4.8	5.0	5.0	5.0	5.6	5.8	6.1	6.3	6.6	7.1
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: P243660

CATALOG NUMBER: S125DRP-H375D927-X4F0-XX-UDD-A-W

CANDELA DISTRIBUTION (continued):

	165°	170°	175°	180°
0°	408.9	408.9	408.9	408.9
2.5°	386.2	386.0	386.8	387.3
5°	363.6	363.1	362.5	362.8
7.5°	343.6	342.2	341.9	341.9
10°	325.8	324.5	324.2	323.7
12.5°	310.7	308.7	307.9	307.1
15°	296.5	296.1	294.3	292.5
17.5°	283.4	283.9	282.0	281.2
20°	272.4	270.9	270.3	269.9
22.5°	261.3	260.2	260.2	259.0
25°	251.4	250.4	250.5	249.4
27.5°	242.1	241.9	241.8	241.4
30°	233.5	232.8	232.1	232.5
32.5°	225.2	224.2	223.7	223.5
35°	216.5	216.2	215.6	215.2
37.5°	208.1	208.3	207.4	207.3
40°	199.0	198.8	198.6	198.3
42.5°	189.4	188.9	189.2	189.0
45°	179.7	179.2	179.6	179.1
47.5°	170.3	170.6	170.6	170.8
50°	161.0	161.7	161.7	162.2
52.5°	152.4	153.7	153.7	153.5
55°	143.1	144.6	145.1	145.2
57.5°	134.3	135.8	137.3	137.6
60°	124.9	127.5	129.0	129.3
62.5°	116.4	118.9	120.9	121.0
65°	106.9	109.9	111.8	112.4
67.5°	97.3	99.7	102.1	103.1
70°	86.4	89.2	90.9	91.5
72.5°	74.9	78.1	80.3	80.6
75°	64.0	66.3	68.0	68.3
77.5°	51.6	53.9	55.4	55.7
80°	39.1	41.1	42.1	42.8
82.5°	27.7	29.0	29.5	30.2
85°	17.1	18.1	18.2	18.2
87.5°	7.5	7.6	7.6	8.0
90°	0.0	0.0	0.0	0.0



TEST NUMBER: P243660
 CATALOG NUMBER: S125DRP-H375D927-X4F0-XX-UDD-A-W

CIE UGR TABLE:

Reflectances:											
Ceiling		0.7	0.7	0.5	0.5	0.3	0.7	0.7	0.5	0.5	0.3
Wall		0.5	0.3	0.5	0.3	0.3	0.5	0.3	0.5	0.3	0.3
Reference plane		0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
Room dimensions		Viewed crosswise					Viewed endwise				
X=2H	Y=2H	14.54	16.11	14.91	16.43	16.74	14.28	15.85	14.65	16.17	16.48
	3H	15.90	17.31	16.27	17.64	18.00	15.71	17.12	16.09	17.45	17.81
	4H	16.37	17.70	16.77	18.05	18.43	16.20	17.52	16.59	17.87	18.25
	6H	16.68	17.91	17.09	18.28	18.67	16.51	17.74	16.92	18.11	18.50
	8H	16.76	17.93	17.18	18.32	18.72	16.59	17.76	17.02	18.15	18.55
	12H	16.79	17.91	17.22	18.30	18.72	16.63	17.75	17.06	18.13	18.56
4H	2H	15.93	17.26	16.33	17.60	17.98	15.35	16.67	15.74	17.02	17.40
	3H	17.29	18.39	17.70	18.79	19.19	17.00	18.11	17.41	18.51	18.91
	4H	17.79	18.79	18.22	19.20	19.64	17.56	18.56	18.00	18.97	19.41
	6H	18.15	19.01	18.60	19.46	19.91	17.94	18.81	18.40	19.25	19.71
	8H	18.24	19.05	18.70	19.49	19.96	18.04	18.85	18.50	19.29	19.76
	12H	18.29	19.01	18.77	19.49	19.96	18.09	18.82	18.57	19.30	19.77
8H	4H	18.25	19.06	18.71	19.50	19.97	17.92	18.73	18.38	19.17	19.64
	6H	18.68	19.35	19.17	19.84	20.32	18.42	19.09	18.91	19.58	20.06
	8H	18.80	19.41	19.32	19.92	20.40	18.56	19.17	19.08	19.68	20.16
	12H	18.89	19.42	19.40	19.92	20.48	18.66	19.20	19.17	19.69	20.25
12H	4H	18.29	19.02	18.77	19.49	19.96	17.94	18.66	18.42	19.14	19.61
	6H	18.75	19.35	19.26	19.86	20.35	18.47	19.07	18.98	19.58	20.07
	8H	18.92	19.46	19.43	19.95	20.51	18.67	19.20	19.18	19.69	20.26