

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: P243764

Luminaire Tested: S125RDRP-H610D927-X4F0-XX-UDD-A-W

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-2024
Report Number: P243764
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
Product Line: NEO-RAY
Catalog Number: S125RDRP-H610D927-X4F0-XX-UDD-A-W
Description: DEFINE 5 REGRESSED DIRECT RECESSED WITH ASYMMETRIC FLUSH DIFFUSER.
HIGH PERFORMANCE LIGHT ENGINE
Light Source: (184) 2700K CCT, 90 CRI LEDS
Ballast/Driver: -

Summary

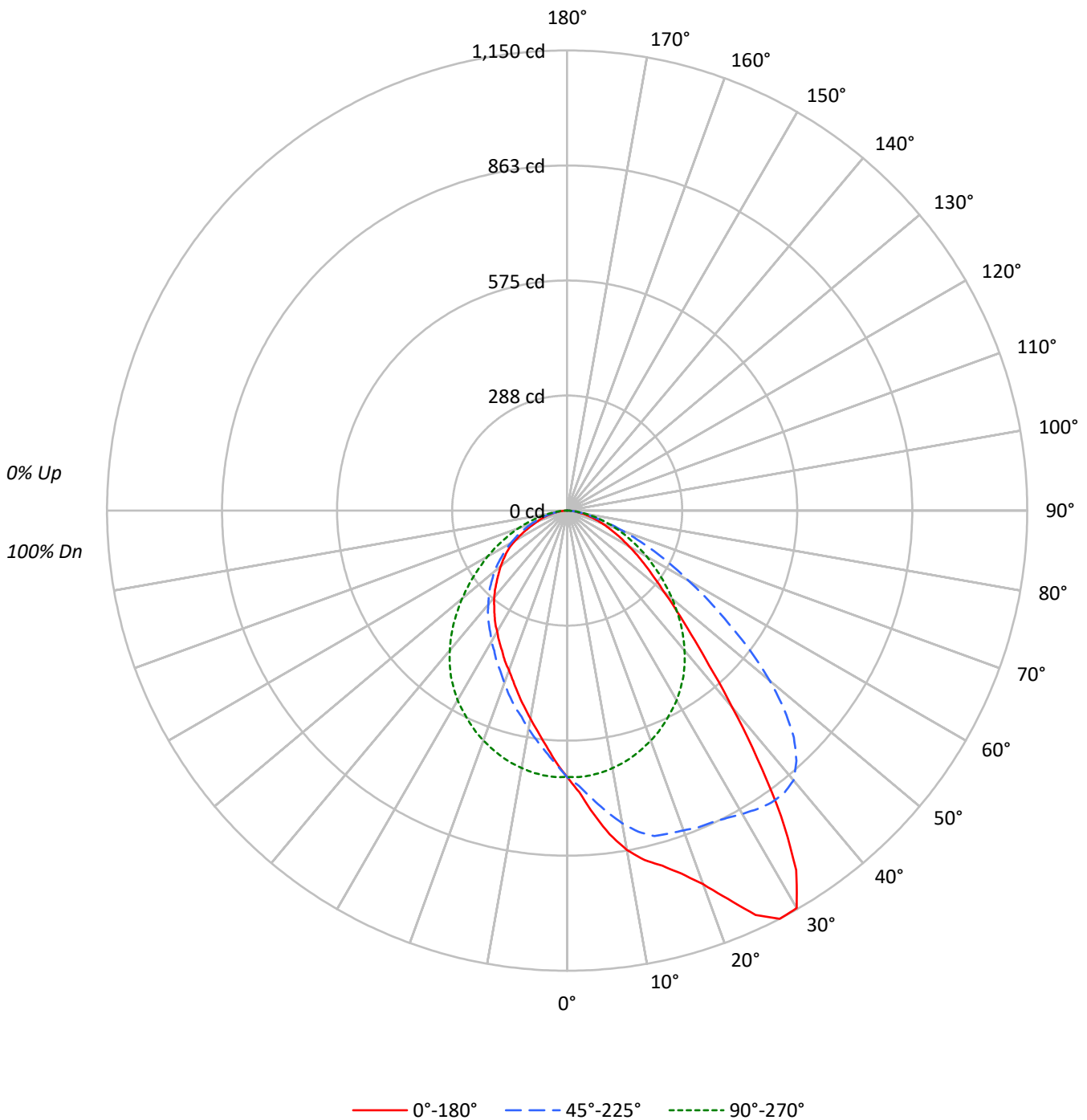
Lumens per Lamp: N/A
Luminaire Lumens: 1772.3 lumens
Efficiency: N/A
Efficacy: 103.0 lumens/watt
Spacing Criteria (0/90/45): 1.42 / 1.22 / 1.5
Luminous Opening: Rectangular (W 3.88' x L: 0.39' x H: 0')
CIE Type: Direct

Input Watts (W): 17.2
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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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	0	
RCR																						
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100				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°	45°	90°	135°	180°
0°	4733	4733	4733	4733	4733
5°	5433	5162	4740	4321	4216
10°	6217	5727	4716	4000	3811
15°	6761	6196	4678	3725	3486
20°	7514	6433	4626	3467	3211
25°	8742	6738	4560	3268	3023
30°	9414	7183	4492	3099	2869
35°	8087	7728	4392	2965	2744
40°	5958	8166	4234	2845	2631
45°	4400	8055	4037	2739	2495
50°	3486	7311	3796	2625	2394
55°	2945	6103	3518	2463	2304
60°	2537	4985	3258	2313	2132
65°	2203	4023	2967	2122	1857
70°	1931	3057	2716	1920	1625
75°	1639	2227	2378	1697	1538
80°	1277	1609	1989	1490	1277
85°	1117	1182	1590	1272	1166

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 45°
 Vertical Angle: 45°
 Luminance: 8055 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	64.1	3.6
10°-20°	189.6	10.7
20°-30°	302.5	17.1
30°-40°	367.3	20.7
40°-50°	330.9	18.7
50°-60°	254.5	14.4
60°-70°	165.1	9.3
70°-80°	79.5	4.5
80°-90°	18.8	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°	556.2	31.4
0°-40°	923.5	52.1
0°-60°	1508.9	85.1
0°-90°	1772.3	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1772.3	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	666	666	666	666	666	
5°	762	724	664	606	591	76
15°	919	842	636	506	474	263
25°	1115	859	582	417	386	510
35°	932	891	506	342	316	570
45°	438	801	402	272	248	348
55°	238	492	284	199	186	215
65°	131	239	176	126	110	131
75°	60	81	87	62	56	64
85°	14	14	20	16	14	16
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	666.0	666.0	666.0	666.0	666.0	666.0	666.0	666.0	666.0	666.0	666.0
2.5°	704.5	707.1	705.0	706.4	704.2	703.2	700.5	696.6	692.6	688.9	688.7
5°	761.5	761.0	758.9	756.0	753.9	748.6	746.0	737.0	730.9	723.5	719.8
7.5°	815.9	814.6	811.4	807.5	805.6	798.8	791.4	780.0	770.5	758.9	750.2
10°	861.4	861.1	858.7	856.1	848.9	841.3	834.2	822.3	808.0	793.5	781.3
12.5°	894.6	893.3	890.4	885.9	880.1	874.8	865.3	854.5	837.1	822.3	805.6
15°	918.9	918.4	914.2	912.6	901.2	893.8	881.2	870.3	856.9	842.1	824.1
17.5°	951.1	952.2	948.5	939.5	929.2	917.9	899.9	882.2	863.5	846.3	831.8
20°	993.4	990.7	984.4	973.6	955.1	941.1	923.1	901.2	875.9	850.5	829.7
22.5°	1049.9	1047.0	1037.0	1023.7	1000.5	974.9	947.4	914.7	885.6	856.6	829.1
25°	1114.8	1109.3	1094.5	1080.3	1047.2	1020.1	979.1	940.0	897.8	859.2	828.3
27.5°	1150.2	1150.2	1143.4	1127.8	1101.6	1061.5	1019.8	967.8	918.9	866.1	822.3
30°	1147.1	1145.2	1147.9	1141.3	1124.4	1094.3	1052.8	998.1	935.8	875.3	822.8
32.5°	1065.2	1066.0	1081.8	1092.7	1101.1	1093.7	1066.8	1017.4	955.4	884.3	820.7
35°	932.1	934.2	962.2	980.7	1018.5	1040.1	1046.5	1019.8	964.1	890.7	817.0
37.5°	780.0	780.0	812.5	840.5	882.7	936.1	976.0	986.0	958.8	890.4	813.8
40°	642.2	641.4	667.0	701.3	746.5	805.4	864.8	915.7	922.4	880.1	802.7
42.5°	525.5	524.2	552.1	571.2	618.7	671.2	750.2	822.3	863.5	848.2	786.4
45°	437.8	436.7	455.0	476.6	510.2	564.8	631.1	711.1	780.3	801.4	755.7
47.5°	371.8	372.3	382.1	400.3	428.8	467.9	527.3	601.5	687.1	735.9	717.2
50°	315.3	317.1	324.5	338.3	359.1	390.5	441.5	508.6	596.5	661.2	665.2
52.5°	273.0	275.7	283.6	291.0	308.4	330.6	370.2	428.3	500.9	578.5	606.3
55°	237.7	239.0	243.5	251.4	264.3	282.8	311.6	355.9	423.3	492.5	541.3
57.5°	208.1	208.1	211.0	216.5	226.8	243.5	262.7	299.4	356.2	418.8	470.8
60°	178.5	179.6	181.7	187.7	194.6	207.3	226.0	249.3	298.4	350.7	406.6
62.5°	153.7	155.5	157.6	160.5	166.9	175.9	189.1	210.5	243.5	291.8	341.7
65°	131.0	132.8	133.1	136.5	140.7	148.1	158.2	173.7	201.2	239.2	280.4
67.5°	110.9	111.7	112.5	115.1	119.1	123.8	130.4	142.1	163.7	189.3	229.5
70°	92.9	93.5	93.7	96.6	98.5	102.7	106.2	113.5	127.3	147.1	178.2
72.5°	76.0	75.3	75.0	77.4	78.2	81.6	85.8	91.1	98.5	112.5	135.7
75°	59.7	59.9	60.2	61.5	61.8	63.4	66.0	69.4	72.9	81.1	95.9
77.5°	45.9	44.9	44.9	46.5	47.0	47.3	49.1	51.0	52.8	57.6	63.4
80°	31.2	31.7	31.7	31.7	32.0	32.5	33.5	35.1	36.4	39.3	40.4
82.5°	22.2	22.2	21.9	22.4	22.7	23.0	23.0	23.0	23.8	24.6	25.6
85°	13.7	14.0	13.2	13.7	14.0	14.0	14.0	14.0	14.8	14.5	14.8
87.5°	5.8	6.1	6.1	6.3	6.3	6.6	6.3	6.6	6.3	6.3	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



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CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°	95°	100°	105°
0°	666.0	666.0	666.0	666.0	666.0	666.0	666.0	666.0	666.0	666.0	666.0
2.5°	687.9	684.7	683.1	679.9	675.7	673.1	670.4	666.7	663.8	659.3	655.4
5°	713.2	706.9	701.1	693.1	685.5	678.9	672.0	664.4	657.5	649.8	641.7
7.5°	741.5	731.4	719.3	705.3	693.4	683.1	671.5	660.1	649.8	637.7	626.6
10°	768.7	752.6	736.5	717.7	700.3	685.0	669.4	653.5	640.1	625.0	611.3
12.5°	789.8	774.5	750.4	727.2	704.5	684.7	665.2	645.9	628.2	611.6	595.2
15°	808.3	782.9	762.6	737.2	709.5	682.6	658.3	635.8	614.5	594.9	578.3
17.5°	813.6	790.8	768.7	739.1	709.3	678.6	650.6	624.0	600.2	578.5	559.8
20°	813.0	790.1	766.0	737.8	706.1	672.6	641.4	611.6	584.6	559.8	539.7
22.5°	805.1	782.9	758.6	730.1	697.9	663.3	630.6	597.6	568.3	542.4	521.8
25°	796.7	768.7	743.3	714.5	683.9	652.0	617.1	581.5	550.8	523.9	500.7
27.5°	789.3	755.7	724.6	696.3	664.9	636.1	601.5	564.3	532.9	504.6	480.6
30°	777.4	742.0	704.2	673.3	643.0	612.9	581.2	547.4	513.1	484.3	460.3
32.5°	767.1	722.5	681.5	646.7	616.3	589.9	559.5	527.1	493.5	466.1	440.2
35°	755.7	702.4	659.6	618.7	588.3	559.5	535.5	506.2	472.9	443.9	420.6
37.5°	742.3	681.8	632.7	591.0	559.5	530.0	508.3	482.2	452.1	423.3	400.3
40°	727.2	660.7	604.2	561.1	527.3	497.7	479.5	456.3	430.7	402.2	380.8
42.5°	708.2	638.2	578.3	531.3	493.8	467.1	448.9	429.6	406.1	381.3	358.1
45°	684.2	610.2	547.4	497.7	460.8	434.9	415.9	401.6	382.9	359.6	337.7
47.5°	654.9	580.9	515.7	464.2	428.6	403.7	386.1	371.8	357.5	337.5	316.6
50°	616.0	547.4	484.8	432.3	394.5	370.5	354.6	343.3	330.3	314.0	295.0
52.5°	573.3	509.6	448.4	399.3	362.8	338.8	322.4	312.9	303.1	289.7	273.3
55°	523.6	471.9	413.5	365.5	329.8	306.0	293.1	283.9	275.7	265.4	251.6
57.5°	471.1	425.7	375.0	330.6	297.1	274.6	263.3	255.6	248.7	241.3	230.0
60°	415.9	383.7	335.6	295.0	265.6	247.2	236.3	229.2	222.9	216.8	208.3
62.5°	358.3	331.7	295.7	261.2	235.0	217.6	209.7	203.6	197.0	191.7	185.6
65°	300.0	284.7	259.8	227.4	203.3	189.1	181.4	176.4	173.2	167.1	162.4
67.5°	246.9	238.4	217.3	195.4	176.9	164.0	156.8	153.2	149.7	146.8	141.5
70°	196.5	190.4	178.2	162.7	148.1	137.0	131.8	130.7	126.0	123.1	120.4
72.5°	149.7	148.1	138.1	131.2	123.1	114.3	110.4	108.3	105.1	102.5	101.4
75°	106.4	108.8	105.6	102.2	98.2	91.1	87.7	86.6	83.7	82.9	81.6
77.5°	72.6	76.0	77.1	75.5	73.7	71.3	68.9	67.9	65.0	64.4	63.6
80°	45.7	50.7	52.5	52.3	51.5	51.8	48.9	48.6	47.3	46.5	47.3
82.5°	27.7	30.4	33.8	34.6	33.5	34.1	33.3	32.2	32.2	32.7	31.7
85°	15.1	15.3	16.9	18.0	19.3	20.3	19.3	19.5	19.3	19.3	18.5
87.5°	6.6	6.9	6.9	6.6	7.1	7.7	8.7	9.2	9.0	8.2	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



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CANDELA DISTRIBUTION (continued):

	110°	115°	120°	125°	130°	135°	140°	145°	150°	155°	160°
0°	666.0	666.0	666.0	666.0	666.0	666.0	666.0	666.0	666.0	666.0	666.0
2.5°	652.2	650.4	647.2	644.6	638.5	634.3	633.7	634.0	633.5	632.9	632.7
5°	636.4	630.3	624.5	619.5	612.6	605.7	602.6	601.3	600.7	597.8	599.4
7.5°	619.5	610.2	603.4	593.9	585.7	579.9	574.3	571.7	571.2	567.2	566.1
10°	601.5	590.4	580.1	570.6	562.4	554.3	547.7	545.3	542.1	538.9	534.2
12.5°	583.8	570.1	558.7	548.2	537.1	527.8	522.6	519.1	515.2	512.3	510.7
15°	562.7	551.1	537.1	525.7	514.4	506.2	499.1	492.7	489.0	486.7	480.1
17.5°	543.7	528.4	515.2	504.3	491.9	482.7	475.3	470.0	463.7	458.9	454.7
20°	523.4	507.5	495.4	482.4	469.8	458.4	449.2	444.9	440.4	436.0	433.6
22.5°	501.4	487.7	474.0	460.5	447.0	434.9	429.1	423.0	419.1	414.6	411.4
25°	482.4	467.4	453.6	438.6	423.8	416.7	408.8	402.7	399.5	395.0	391.6
27.5°	462.1	447.6	431.2	415.6	406.9	394.8	389.5	384.7	380.5	376.0	373.6
30°	443.1	426.2	409.8	397.7	386.3	377.6	372.6	366.8	361.0	358.9	355.7
32.5°	423.0	404.8	390.5	378.4	368.9	358.3	353.6	348.8	343.3	340.6	337.7
35°	402.2	384.5	370.5	359.4	349.6	341.7	336.4	331.4	328.0	324.0	321.9
37.5°	380.2	364.9	351.5	340.4	331.4	325.1	318.5	314.5	309.7	306.0	304.5
40°	359.4	345.7	332.7	322.4	314.2	306.6	300.8	295.7	292.8	289.7	287.0
42.5°	340.6	326.4	315.3	304.5	297.1	289.7	283.9	280.2	275.1	273.8	270.1
45°	320.6	307.4	296.3	286.2	278.6	272.5	265.6	261.2	258.0	254.8	253.5
47.5°	300.2	288.1	277.8	268.5	260.6	253.8	248.5	243.7	240.3	237.4	235.8
50°	280.4	269.9	259.6	250.6	242.4	237.4	231.0	225.8	223.1	220.0	218.1
52.5°	259.6	250.9	239.8	232.1	224.4	217.8	211.5	208.1	205.4	202.8	201.5
55°	240.0	230.8	221.3	213.1	205.7	198.8	193.8	191.2	187.7	186.2	185.9
57.5°	220.0	210.5	202.5	195.1	186.7	181.4	176.9	173.7	170.8	169.5	169.5
60°	198.0	190.4	183.0	174.8	168.7	162.7	157.9	155.8	152.9	152.4	150.5
62.5°	178.0	170.8	163.7	156.1	150.5	144.4	141.0	138.1	136.5	134.4	132.3
65°	157.1	150.8	143.9	137.3	132.8	126.2	123.1	119.6	117.8	115.4	112.8
67.5°	137.0	131.0	124.6	118.6	114.9	108.5	106.4	102.2	100.9	98.2	95.9
70°	115.9	111.7	106.7	100.6	97.4	92.4	90.3	86.3	84.2	82.6	81.3
72.5°	97.7	93.7	87.9	84.0	80.0	76.8	73.4	71.6	69.7	68.4	68.1
75°	79.7	74.7	71.3	67.6	65.0	61.8	60.2	58.9	58.1	57.3	56.5
77.5°	61.0	58.9	55.5	51.8	49.6	48.3	47.3	46.7	45.9	45.7	44.9
80°	45.4	42.5	40.4	39.1	37.5	36.4	35.6	33.8	32.7	32.2	31.7
82.5°	30.1	29.3	27.7	26.4	25.1	24.8	24.0	23.5	23.2	23.2	23.0
85°	18.2	16.1	16.1	15.8	15.8	15.6	15.1	15.1	14.5	15.3	15.3
87.5°	7.4	7.4	6.9	6.9	7.1	6.6	6.3	6.3	6.3	6.1	6.3
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):

	165°	170°	175°	180°
0°	666.0	666.0	666.0	666.0
2.5°	632.7	631.4	631.6	630.0
5°	596.5	595.7	593.1	591.0
7.5°	563.5	560.1	559.8	557.7
10°	532.6	529.4	527.8	528.1
12.5°	505.7	502.2	502.2	500.1
15°	476.9	473.5	474.0	473.7
17.5°	453.1	450.7	448.9	447.3
20°	429.9	427.0	425.9	424.6
22.5°	408.5	406.4	406.6	406.6
25°	388.2	388.4	386.1	385.5
27.5°	370.2	369.7	369.2	368.1
30°	353.3	351.2	350.7	349.6
32.5°	335.9	335.6	333.5	334.3
35°	318.2	317.4	316.9	316.3
37.5°	301.8	300.2	300.0	299.4
40°	285.2	284.7	282.3	283.6
42.5°	267.2	266.2	266.2	266.2
45°	252.2	249.3	249.3	248.2
47.5°	235.3	234.2	233.7	231.8
50°	218.6	217.1	216.5	216.5
52.5°	201.5	201.2	201.7	200.7
55°	186.4	186.7	186.4	185.9
57.5°	170.1	168.7	168.7	169.0
60°	150.5	150.5	151.0	150.0
62.5°	131.8	131.2	129.4	128.9
65°	112.5	110.4	110.1	110.4
67.5°	95.3	94.5	93.2	93.5
70°	80.5	80.3	79.0	78.2
72.5°	67.3	67.3	66.5	66.5
75°	56.2	55.7	55.5	56.0
77.5°	43.3	42.0	42.5	41.7
80°	31.4	32.0	31.4	31.2
82.5°	23.2	22.7	23.0	22.7
85°	14.8	14.3	14.5	14.3
87.5°	6.1	6.3	6.3	5.8
90°	0.0	0.0	0.0	0.0



TEST NUMBER: P243764
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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	15.32	16.86	15.69	17.18	17.49	16.02	17.56	16.39	17.88	18.19
	3H	16.41	17.79	16.78	18.11	18.48	17.50	18.88	17.87	19.21	19.57
	4H	16.76	18.06	17.16	18.41	18.79	18.02	19.32	18.42	19.67	20.04
	6H	16.98	18.18	17.39	18.54	18.94	18.38	19.58	18.79	19.94	20.33
	8H	17.04	18.18	17.46	18.57	18.97	18.48	19.62	18.90	20.01	20.41
	12H	17.07	18.16	17.50	18.55	18.97	18.54	19.63	18.97	20.01	20.44
4H	2H	16.84	18.14	17.24	18.49	18.87	16.89	18.19	17.29	18.54	18.92
	3H	17.89	18.96	18.30	19.36	19.76	18.55	19.63	18.96	20.03	20.43
	4H	18.25	19.22	18.68	19.63	20.07	19.15	20.12	19.58	20.53	20.97
	6H	18.49	19.33	18.95	19.78	20.24	19.59	20.43	20.04	20.87	21.33
	8H	18.56	19.34	19.02	19.79	20.25	19.71	20.50	20.17	20.94	21.41
	12H	18.60	19.31	19.09	19.78	20.25	19.79	20.50	20.28	20.97	21.44
8H	4H	18.61	19.40	19.07	19.84	20.31	19.31	20.09	19.77	20.53	21.00
	6H	18.90	19.55	19.40	20.04	20.52	19.83	20.48	20.32	20.97	21.44
	8H	19.00	19.58	19.51	20.09	20.58	20.00	20.59	20.52	21.10	21.58
	12H	19.08	19.60	19.59	20.09	20.65	20.14	20.66	20.65	21.15	21.71
12H	4H	18.63	19.34	19.12	19.81	20.29	19.30	20.00	19.78	20.47	20.95
	6H	18.94	19.52	19.45	20.03	20.52	19.82	20.40	20.33	20.91	21.40
	8H	19.07	19.58	19.58	20.08	20.64	20.04	20.55	20.55	21.04	21.61