

IES INDOOR REPORT

PHOTOMETRIC FILENAME : 4DR-L20-835-DIM-UNV-OWW-SF-CS_.IES

DESCRIPTION INFORMATION (From Photometric File)

IESNA:LM-63-2002

[TEST] 12316380.06

[TESTLAB] UL Verification Services Inc.

[ISSUE DATE] 10/02/2019

[MANUFAC] WILLIAMS INDOOR

[OTHER] H.E. WILLIAMS, INC. - CARTHAGE, MO.

[LUMCAT] 4DR-L20-835-DIM-UNV-OWW-SF-CS

[LUMINAIRE] Black formed aluminum housing, specular/semi-specular refl

[MORE] ector, white/black baffle, no lens enclosure

[LAMP] One white LED

[_SEARCH_SOURCETYPE] LED

[_SEARCH_APPLICATION] Indoor, Classroom, Commercial, Corridor, Hotel, Industrial, Office, Downlight

[_SEARCH_MOUNTING] Recessed

CHARACTERISTICS

Lumens Per Lamp	N.A. (absolute)
Total Lamp Lumens	N.A. (absolute)
Luminaire Lumens	1131
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	57
Total Luminaire Watts	19.7832
Ballast Factor	1.00
CIE Type	Direct
Spacing Criterion (0-180)	1.30
Spacing Criterion (90-270)	1.08
Spacing Criterion (Diagonal)	0.90
Basic Luminous Shape	Circular
Luminous Length (0-180)	0.38 ft (Diameter)
Luminous Width (90-270)	0.38 ft (Diameter)
Luminous Height	0.00 ft

LUMINANCE DATA (cd/sq.m)

Angle In Degrees	Average 0-Deg	Average 45-Deg	Average 90-Deg
45	9212	8510	18727
55	5059	4685	11849
65	4815	4101	6843
75	2633	1806	4251
85	223	223	1564

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CANDELA TABULATION

	<u>0.0</u>	<u>22.5</u>	<u>45.0</u>	<u>67.5</u>	<u>90.0</u>	<u>112.5</u>	<u>135.0</u>	<u>157.5</u>	<u>180.0</u>
0.0	1036.0	1036.0	1036.0	1036.0	1036.0	1036.0	1036.0	1036.0	1036.0
0.5	1018.0	1045.0	1044.0	1051.0	1047.0	1040.0	1033.0	1025.0	980.2
1.0	1030.0	1051.0	1049.0	1053.0	1046.0	1035.0	1020.0	1012.0	957.6
1.5	1041.0	1056.0	1053.0	1053.0	1044.0	1030.0	1009.0	993.8	931.5
2.0	1051.0	1057.0	1054.0	1053.0	1042.0	1022.0	989.3	969.1	901.4
2.5	1061.0	1059.0	1055.0	1056.0	1042.0	1010.0	963.8	936.3	864.3
3.0	1071.0	1066.0	1052.0	1059.0	1044.0	999.2	930.0	903.7	829.0
3.5	1080.0	1073.0	1050.0	1063.0	1051.0	988.6	896.2	873.1	800.5
4.0	1087.0	1079.0	1050.0	1062.0	1053.0	975.3	864.4	838.3	770.2
4.5	1096.0	1084.0	1054.0	1060.0	1054.0	960.7	834.9	801.7	739.0
5.0	1105.0	1089.0	1057.0	1054.0	1053.0	944.6	805.4	770.2	712.5
5.5	1112.0	1095.0	1058.0	1051.0	1054.0	925.5	777.6	744.1	687.8
6.0	1120.0	1099.0	1056.0	1048.0	1054.0	905.5	751.5	717.8	661.7
6.5	1127.0	1102.0	1057.0	1046.0	1056.0	883.7	728.6	691.2	637.7
7.0	1132.0	1105.0	1059.0	1042.0	1056.0	861.7	705.7	667.0	616.5
7.5	1134.0	1106.0	1061.0	1037.0	1056.0	835.0	682.1	645.0	594.7
8.0	1137.0	1103.0	1062.0	1032.0	1055.0	809.0	658.1	622.8	574.3
8.5	1135.0	1099.0	1061.0	1026.0	1053.0	781.0	635.8	601.6	558.6
9.0	1130.0	1094.0	1060.0	1019.0	1049.0	754.4	614.9	583.6	547.1
9.5	1121.0	1087.0	1059.0	1013.0	1045.0	728.5	594.1	568.4	537.3
10.0	1111.0	1078.0	1057.0	1009.0	1041.0	704.5	572.6	553.3	530.2
10.5	1098.0	1068.0	1053.0	1005.0	1036.0	681.1	552.4	539.8	525.6
11.0	1086.0	1057.0	1047.0	1002.0	1032.0	659.2	534.5	529.6	520.9
11.5	1074.0	1047.0	1042.0	999.8	1028.0	638.0	518.2	521.1	516.9
12.0	1062.0	1035.0	1037.0	998.0	1026.0	617.5	503.1	513.7	512.3
12.5	1051.0	1025.0	1030.0	994.9	1024.0	597.8	489.0	506.9	508.3
13.0	1039.0	1015.0	1023.0	993.3	1027.0	579.0	476.5	501.6	504.6
13.5	1027.0	1005.0	1016.0	991.8	1028.0	561.8	466.3	496.5	499.6
14.0	1017.0	997.0	1008.0	989.8	1032.0	544.9	457.8	491.4	495.4
14.5	1007.0	990.4	1000.0	987.6	1034.0	528.0	450.1	486.4	492.0
15.0	1000.0	985.7	992.9	984.8	1037.0	511.2	442.8	481.4	488.3
15.5	996.2	983.2	986.2	982.2	1042.0	495.2	437.0	476.7	484.4
16.0	996.4	983.2	980.8	981.9	1045.0	480.2	432.0	472.2	480.0
16.5	1001.0	987.1	976.8	982.7	1050.0	466.6	427.0	467.7	475.7
17.0	1012.0	994.6	973.3	984.8	1056.0	454.2	422.2	463.5	471.4
17.5	1029.0	1005.0	970.7	987.4	1069.0	443.4	417.7	459.3	467.0
18.0	1052.0	1017.0	968.7	990.2	1079.0	433.3	413.4	455.6	462.8
18.5	1078.0	1038.0	966.9	993.4	1090.0	424.0	409.1	452.0	458.5
19.0	1105.0	1062.0	966.4	996.4	1106.0	414.9	405.0	448.5	454.4
19.5	1132.0	1089.0	967.4	1000.0	1115.0	406.1	401.0	445.1	450.3
20.0	1154.0	1115.0	970.1	1003.0	1118.0	397.9	397.3	441.9	446.7
20.5	1179.0	1146.0	975.9	1006.0	1118.0	390.6	393.9	438.6	443.0
21.0	1209.0	1176.0	985.4	1009.0	1115.0	384.3	390.5	435.4	439.2
21.5	1237.0	1216.0	998.7	1012.0	1111.0	378.7	387.3	432.2	435.6
22.0	1282.0	1260.0	1016.0	1015.0	1106.0	373.4	384.2	429.0	431.9
22.5	1322.0	1304.0	1040.0	1018.0	1105.0	368.2	381.0	425.8	428.4
23.0	1365.0	1351.0	1064.0	1022.0	1095.0	362.3	377.7	422.1	424.5
23.5	1403.0	1393.0	1089.0	1026.0	1083.0	356.0	374.6	418.4	420.6
24.0	1448.0	1437.0	1116.0	1026.0	1069.0	349.5	371.1	414.6	416.6
24.5	1498.0	1477.0	1140.0	1013.0	1053.0	343.8	367.7	410.4	412.6
25.0	1550.0	1507.0	1154.0	991.5	1030.0	338.6	364.4	406.5	408.4
25.5	1602.0	1523.0	1159.0	965.8	1001.0	334.1	361.0	402.7	404.3
26.0	1655.0	1530.0	1159.0	936.1	958.1	329.4	357.5	398.7	400.4
26.5	1691.0	1520.0	1147.0	901.0	915.2	324.4	354.3	394.9	396.6

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CANDELA TABULATION - (Cont.)

27.0	1723.0	1502.0	1125.0	862.6	867.8	319.5	351.0	390.9	392.7
27.5	1729.0	1471.0	1103.0	820.7	818.5	314.6	347.7	387.2	389.0
28.0	1704.0	1423.0	1074.0	775.4	770.9	309.8	344.6	383.7	385.5
28.5	1655.0	1356.0	1031.0	719.6	725.8	305.2	341.3	379.9	381.9
29.0	1593.0	1272.0	974.1	658.5	679.4	300.5	338.3	376.6	378.6
29.5	1516.0	1179.0	911.7	595.1	632.6	296.0	335.4	373.3	375.4
30.0	1434.0	1082.0	842.5	537.2	582.2	291.2	332.6	369.8	372.3
30.5	1343.0	981.1	761.9	485.6	531.8	286.3	329.8	366.4	369.2
31.0	1244.0	884.1	685.7	443.7	476.2	281.6	326.8	363.1	366.1
31.5	1138.0	798.1	613.7	401.9	431.2	277.1	324.0	359.7	362.8
32.0	1022.0	716.0	547.6	360.6	390.1	273.3	321.2	356.4	359.6
32.5	904.9	634.4	485.7	315.6	353.5	269.9	318.4	353.1	356.3
33.0	780.6	552.6	431.7	274.1	318.8	266.8	315.7	349.7	353.1
33.5	661.1	474.7	380.6	233.3	290.1	263.9	312.9	346.3	349.5
34.0	563.8	403.1	332.6	198.3	265.1	261.0	310.2	343.0	346.4
34.5	490.8	349.5	290.9	172.0	242.2	258.4	307.4	339.7	343.2
35.0	433.9	308.6	258.1	157.3	223.0	255.8	304.8	336.4	339.9
35.5	383.6	275.7	231.0	147.2	207.9	253.2	302.1	333.0	336.5
36.0	336.9	245.8	205.9	138.1	198.9	250.7	299.3	329.7	333.2
36.5	292.2	218.9	181.6	130.6	193.4	248.3	296.5	326.3	329.7
37.0	250.1	193.6	159.7	124.8	188.7	245.7	293.7	322.9	326.1
37.5	212.0	170.4	141.3	120.1	184.4	243.3	291.0	319.5	322.7
38.0	181.9	150.3	127.5	116.0	180.5	240.7	288.1	316.3	319.3
38.5	158.7	134.0	116.6	112.3	176.8	238.1	285.1	312.9	315.6
39.0	141.5	121.0	108.1	108.9	173.2	235.5	282.1	309.5	312.0
39.5	128.5	110.8	101.0	105.7	169.7	233.1	279.2	306.1	308.3
40.0	118.1	102.7	95.1	102.7	166.4	230.5	276.2	302.7	304.7
40.5	109.8	95.7	90.0	99.9	163.8	227.9	273.3	299.3	300.7
41.0	102.9	89.8	85.6	97.2	160.6	225.3	270.1	295.9	296.8
41.5	96.9	84.6	81.6	94.5	157.6	222.6	267.2	292.4	292.9
42.0	91.6	80.0	78.1	92.0	154.5	220.0	264.0	289.0	288.9
42.5	86.6	75.6	74.8	89.4	151.6	217.1	260.8	285.4	284.9
43.0	82.2	71.7	71.9	87.0	148.5	214.2	257.4	281.7	280.5
43.5	78.0	68.2	69.1	84.6	145.5	211.2	254.0	277.9	276.0
44.0	74.1	64.9	66.5	82.2	142.3	208.5	250.2	274.0	271.4
44.5	70.4	61.9	64.0	79.9	139.1	205.0	246.4	269.9	266.4
45.0	66.9	59.1	61.8	77.6	136.0	201.2	242.2	265.5	260.9
45.5	63.8	56.4	59.7	75.4	132.8	197.2	237.9	260.8	254.5
46.0	60.9	54.0	57.7	73.1	129.7	192.9	233.6	256.0	248.0
46.5	58.2	51.8	55.8	70.8	126.4	188.9	229.1	251.0	241.5
47.0	55.5	49.8	53.9	68.6	123.2	184.6	224.4	245.6	234.9
47.5	53.3	47.9	52.0	66.4	119.8	180.2	219.5	240.0	228.3
48.0	51.3	46.0	50.0	64.2	116.5	175.8	214.5	234.1	221.8
48.5	49.5	44.2	48.0	62.2	113.0	171.1	209.6	227.8	215.6
49.0	47.7	42.4	46.0	60.1	109.4	166.3	204.0	221.5	209.4
49.5	46.0	40.8	43.9	58.1	105.8	162.1	198.5	215.2	203.3
50.0	44.5	39.1	41.8	56.1	102.3	157.4	193.0	209.5	197.2
50.5	43.0	37.7	39.9	54.1	98.9	152.8	187.7	203.4	191.2
51.0	41.2	36.2	38.2	52.2	95.7	148.1	182.4	197.5	186.6
51.5	39.4	34.7	36.6	50.4	92.3	143.5	177.0	191.5	180.8
52.0	37.6	33.4	35.1	48.6	89.0	139.0	171.7	185.7	175.2
52.5	36.0	32.2	33.7	46.7	85.7	134.6	166.5	179.9	169.8
53.0	34.4	31.2	32.4	44.9	82.4	130.2	161.9	174.4	164.4
53.5	32.9	30.2	31.0	43.1	79.1	125.9	156.9	169.1	159.1
54.0	31.6	29.3	29.7	41.4	75.9	121.7	152.1	164.3	154.0
54.5	30.6	28.5	28.5	39.9	72.8	117.6	147.3	159.2	149.1

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CANDELA TABULATION - (Cont.)

55.0	29.8	27.9	27.6	38.4	69.8	113.5	142.6	154.2	144.3
55.5	29.1	27.4	26.9	37.1	67.1	109.6	137.9	149.2	139.7
56.0	28.5	26.9	26.3	35.9	64.4	105.7	133.3	144.4	135.3
56.5	28.0	26.5	25.8	34.8	61.9	101.9	128.9	139.8	131.0
57.0	27.6	26.1	25.4	33.6	59.4	98.3	124.6	135.4	126.8
57.5	27.2	25.7	25.0	32.5	56.9	94.8	120.5	131.1	122.9
58.0	26.9	25.4	24.7	31.3	54.6	91.4	116.6	127.0	119.0
58.5	26.6	25.1	24.3	30.2	52.3	88.1	112.7	122.9	115.3
59.0	26.4	24.7	24.0	29.1	50.1	84.9	109.0	119.1	111.7
59.5	26.2	24.4	23.7	28.1	47.9	81.9	105.4	115.3	108.2
60.0	25.8	24.1	23.4	27.2	45.9	79.0	102.0	111.7	104.8
60.5	25.5	23.7	23.0	26.3	43.9	76.2	98.7	108.1	101.5
61.0	25.1	23.2	22.5	25.4	42.1	73.6	95.5	104.7	98.3
61.5	24.7	22.8	22.0	24.5	40.4	71.0	92.5	101.4	95.2
62.0	24.3	22.2	21.5	23.7	38.7	68.5	89.5	98.2	92.1
62.5	23.8	21.7	20.9	23.0	37.0	66.2	86.7	95.1	89.1
63.0	23.3	21.1	20.3	22.3	35.4	63.9	84.0	92.1	86.2
63.5	22.7	20.5	19.7	21.6	33.9	61.7	81.3	89.1	83.3
64.0	22.2	19.9	19.1	20.8	32.4	59.6	78.8	86.2	80.5
64.5	21.6	19.2	18.5	20.1	31.0	57.6	76.3	83.4	77.8
65.0	20.9	18.5	17.8	19.3	29.7	55.7	73.9	80.7	75.1
65.5	20.1	17.8	17.1	18.5	28.5	53.8	71.6	78.0	72.6
66.0	19.4	17.1	16.4	17.8	27.4	51.9	69.3	75.4	70.1
66.5	18.6	16.4	15.8	17.0	26.3	50.1	67.0	72.9	67.6
67.0	17.9	15.7	15.1	16.3	25.3	48.4	64.8	70.4	65.3
67.5	17.1	14.9	14.4	15.6	24.3	46.8	62.7	68.1	63.0
68.0	16.3	14.2	13.7	14.9	23.3	45.2	60.6	65.7	60.8
68.5	15.6	13.5	13.1	14.2	22.3	43.6	58.6	63.5	58.6
69.0	14.9	12.9	12.4	13.5	21.4	42.1	56.6	61.3	56.5
69.5	14.2	12.2	11.8	12.8	20.5	40.6	54.6	59.1	54.5
70.0	13.5	11.6	11.1	12.2	19.6	39.2	52.7	57.0	52.4
70.5	12.8	10.9	10.5	11.5	18.7	37.8	50.9	55.0	50.5
71.0	12.1	10.3	9.9	10.9	17.9	36.4	49.0	53.0	48.5
71.5	11.4	9.7	9.3	10.3	17.0	35.1	47.3	51.0	46.7
72.0	10.7	9.1	8.7	9.6	16.2	33.8	45.6	49.1	44.8
72.5	10.1	8.4	8.1	9.0	15.4	32.5	43.9	47.2	43.0
73.0	9.5	7.8	7.4	8.4	14.6	31.2	42.3	45.3	41.2
73.5	8.9	7.1	6.8	7.8	13.7	29.9	40.6	43.5	39.4
74.0	8.3	6.4	6.1	7.1	12.9	28.6	39.1	41.7	37.6
74.5	7.6	5.7	5.4	6.4	12.1	27.4	37.5	39.9	35.9
75.0	7.0	4.9	4.8	5.9	11.3	26.1	35.9	38.2	34.2
75.5	6.4	4.3	4.3	5.4	10.6	24.8	34.3	36.5	32.5
76.0	5.7	3.7	3.9	4.9	10.0	23.6	32.7	34.8	30.9
76.5	4.9	3.3	3.4	4.5	9.3	22.4	31.2	33.1	29.2
77.0	4.0	2.8	3.1	4.0	8.7	21.3	29.6	31.4	27.5
77.5	3.0	2.3	2.6	3.6	8.1	20.1	28.1	29.7	25.8
78.0	2.1	1.8	2.2	3.1	7.5	18.9	26.5	28.0	24.1
78.5	1.5	1.3	1.7	2.7	6.8	17.8	25.0	26.4	22.4
79.0	1.2	1.0	1.3	2.2	6.2	16.6	23.4	24.7	20.6
79.5	1.0	0.8	1.0	1.9	5.6	15.4	21.9	23.0	18.8
80.0	0.8	0.7	0.8	1.6	5.1	14.3	20.3	21.2	17.0
80.5	0.7	0.6	0.7	1.4	4.6	13.2	18.6	19.5	15.1
81.0	0.6	0.5	0.6	1.2	4.2	12.0	17.0	17.7	13.2
81.5	0.6	0.5	0.5	1.1	3.7	10.9	15.3	15.8	11.1
82.0	0.5	0.4	0.5	0.9	3.3	9.8	13.6	13.9	9.0
82.5	0.4	0.4	0.4	0.8	2.9	8.6	11.9	12.0	6.9

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CANDELA TABULATION - (Cont.)

83.0	0.4	0.3	0.4	0.7	2.5	7.4	10.1	9.9	4.6
83.5	0.4	0.3	0.3	0.6	2.1	6.2	8.2	7.9	2.4
84.0	0.3	0.3	0.3	0.5	1.8	5.4	6.9	6.2	0.8
84.5	0.3	0.2	0.2	0.4	1.6	4.7	6.1	5.1	0.2
85.0	0.2	0.2	0.2	0.4	1.4	4.1	5.2	4.0	0.2
85.5	0.2	0.2	0.2	0.3	1.1	3.5	4.2	2.9	0.2
86.0	0.2	0.2	0.2	0.2	0.9	2.8	3.2	1.8	0.1
86.5	0.2	0.1	0.2	0.2	0.7	2.1	2.2	0.7	0.1
87.0	0.2	0.1	0.1	0.1	0.4	1.3	1.1	0.2	0.1
87.5	0.1	0.1	0.1	0.1	0.2	0.5	0.2	0.1	0.1
88.0	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
88.5	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
89.0	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
89.5	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
90.0	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
90.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
91.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
91.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
92.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
92.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
93.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
93.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
94.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
94.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
95.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
95.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
96.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
96.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
97.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
97.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
98.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
98.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
99.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
99.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
100.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
100.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
101.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
101.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
102.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
102.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
103.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
103.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
104.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
104.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
105.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
105.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
106.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
106.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
107.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
107.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
108.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
108.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
109.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
109.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
110.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
110.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

IES INDOOR REPORT
 PHOTOMETRIC FILENAME : 4DR-L20-835-DIM-UNV-OWW-SF-CS_.IES

CANDELA TABULATION - (Cont.)

111.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
111.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
112.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
112.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
113.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
113.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
114.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
114.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
115.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
115.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
116.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
116.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
117.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
117.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
118.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
118.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
119.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
119.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
120.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
120.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
121.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
121.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
122.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
122.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
123.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
123.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
124.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
124.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
125.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
125.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
126.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
126.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
127.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
127.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
128.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
128.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
129.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
129.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
130.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
130.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
131.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
131.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
132.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
132.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
133.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
133.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
134.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
134.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
135.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
135.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
136.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
136.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
137.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
137.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
138.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
138.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

IES INDOOR REPORT
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CANDELA TABULATION - (Cont.)

139.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
139.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
140.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
140.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
141.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
141.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
142.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
142.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
143.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
143.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
144.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
144.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
145.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
145.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
146.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
146.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
147.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
147.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
148.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
148.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
149.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
149.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
150.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
150.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
151.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
151.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
152.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
152.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
153.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
153.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
154.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
154.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
155.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
155.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
156.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
156.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
157.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
157.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
158.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
158.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
159.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
159.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
160.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
160.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
161.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
161.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
162.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
162.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
163.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
163.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
164.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
164.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
165.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
165.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
166.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
166.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

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CANDELA TABULATION - (Cont.)

167.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
167.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
168.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
168.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
169.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
169.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
170.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
170.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
171.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
171.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
172.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
172.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
173.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
173.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
174.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
174.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
175.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
175.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
176.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
176.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
177.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
177.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
178.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
178.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
179.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
179.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
180.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

IES INDOOR REPORT
PHOTOMETRIC FILENAME : 4DR-L20-835-DIM-UNV-OWW-SF-CS_.IES

ZONAL LUMEN SUMMARY

Zone	Lumens	%Lamp	%Fixt
0-20	310.57	N.A.	27.50
0-30	675.63	N.A.	59.70
0-40	874.55	N.A.	77.30
0-60	1065.5	N.A.	94.20
0-80	1128.28	N.A.	99.70
0-90	1131.39	N.A.	100.00
10-90	1043.01	N.A.	92.20
20-40	563.99	N.A.	49.80
20-50	679.77	N.A.	60.10
40-70	233.94	N.A.	20.70
60-80	62.78	N.A.	5.50
70-80	19.79	N.A.	1.70
80-90	3.11	N.A.	0.30
90-110	0.00	N.A.	0.00
90-120	0.00	N.A.	0.00
90-130	0.00	N.A.	0.00
90-150	0.00	N.A.	0.00
90-180	0.00	N.A.	0.00
110-180	0.00	N.A.	0.00
0-180	1131.39	N.A.	100.00

Total Luminaire Efficiency = N.A. %

ZONAL LUMEN SUMMARY

Zone	Lumens
0-10	88.38
10-20	222.18
20-30	365.06
30-40	198.92
40-50	115.78
50-60	75.17
60-70	42.99
70-80	19.79
80-90	3.11
90-100	0.00
100-110	0.00
110-120	0.00
120-130	0.00
130-140	0.00
140-150	0.00
150-160	0.00
160-170	0.00
170-180	0.00

IES INDOOR REPORT
PHOTOMETRIC FILENAME : 4DR-L20-835-DIM-UNV-OWW-SF-CS_.IES

COEFFICIENTS OF UTILIZATION - ZONAL CAVITY METHOD

Effective Floor Cavity Reflectance 0.20

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
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100
1	112	109	106	103	110	107	104	102	103	100	98	99	97	95	95	94	93	91
2	105	99	95	91	103	98	93	89	94	91	88	91	88	86	88	86	84	82
3	99	91	85	80	97	90	84	80	87	82	78	84	81	77	82	79	76	74
4	93	84	77	72	91	83	77	72	80	75	71	78	74	70	76	72	69	68
5	87	77	71	66	85	76	70	65	75	69	65	73	68	64	71	67	64	62
6	82	72	65	60	81	71	65	60	69	64	59	68	63	59	67	62	58	57
7	78	67	60	55	76	66	60	55	65	59	55	64	58	54	62	58	54	52
8	73	62	56	51	72	62	55	51	61	55	51	60	54	50	59	54	50	49
9	69	59	52	47	68	58	52	47	57	51	47	56	51	47	55	50	47	45
10	66	55	48	44	65	54	48	44	54	48	44	53	47	44	52	47	44	42

IES INDOOR REPORT
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UGR TABLE - CORRECTED

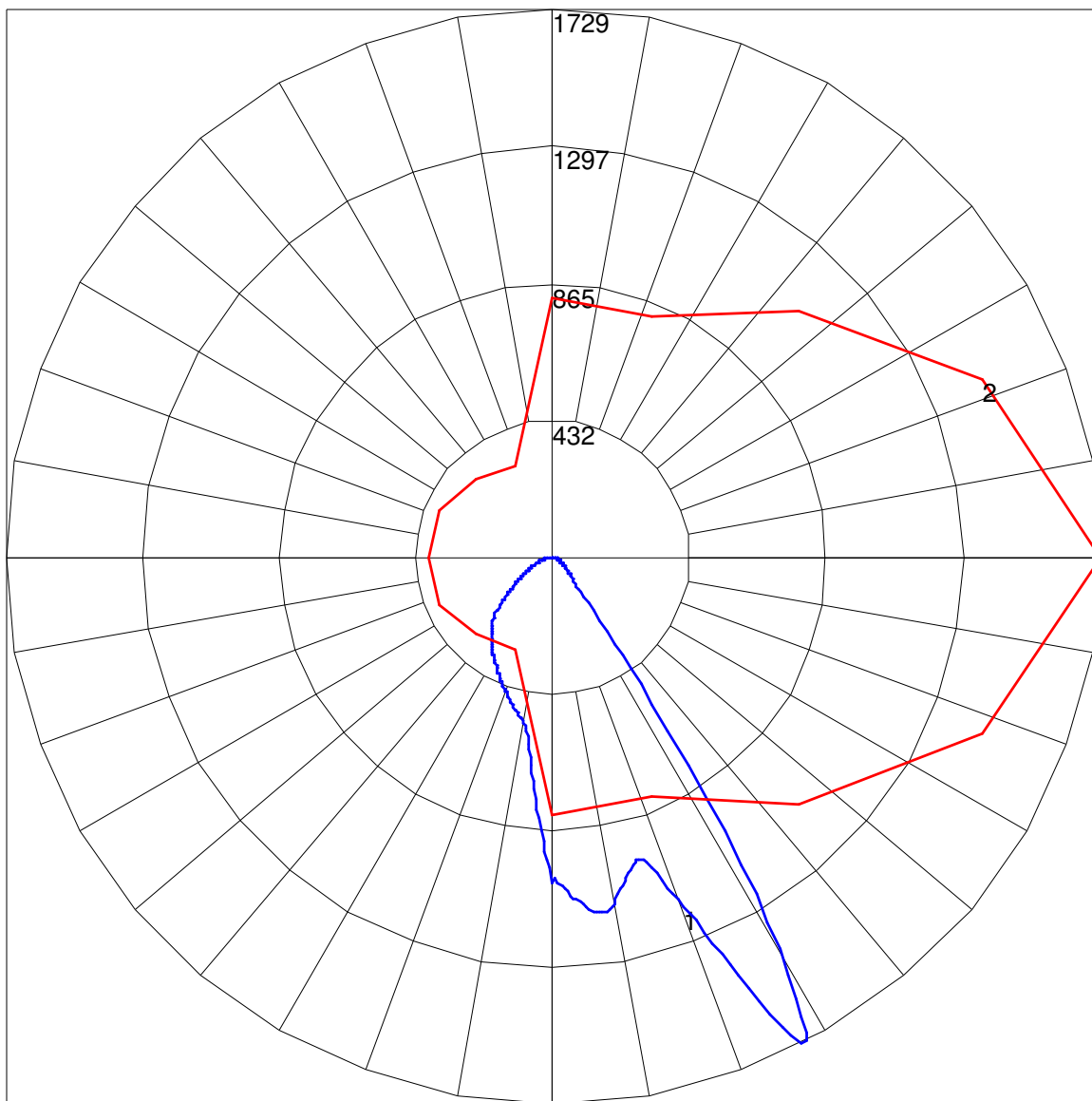
Reflectances

Ceiling Cavity	70	70	50	50	30	70	70	50	50	30
Walls	50	30	50	30	30	50	30	50	30	30
Floor Cavity	20	20	20	20	20	20	20	20	20	20

Room Size		UGR Viewed Crosswise					UGR Viewed Endwise				
X=2H	Y=2H	10.5	11.7	10.8	12.0	12.3	17.0	18.2	17.4	18.5	18.9
	3H	11.9	13.0	12.3	13.3	13.7	17.8	18.9	18.2	19.2	19.6
	4H	12.2	13.2	12.6	13.6	14.0	18.0	19.0	18.4	19.3	19.7
	6H	12.2	13.1	12.6	13.5	13.9	18.0	19.0	18.5	19.3	19.7
	8H	12.1	13.0	12.6	13.4	13.8	18.0	18.9	18.5	19.3	19.7
	12H	12.1	12.9	12.5	13.3	13.7	18.0	18.8	18.5	19.2	19.6
4H	2H	10.9	11.9	11.3	12.3	12.7	17.7	18.7	18.1	19.1	19.5
	3H	12.5	13.3	12.9	13.7	14.1	18.8	19.6	19.2	20.0	20.4
	4H	12.8	13.5	13.2	13.9	14.3	19.1	19.8	19.5	20.2	20.7
	6H	12.7	13.3	13.2	13.8	14.3	19.2	19.9	19.7	20.3	20.8
	8H	12.7	13.2	13.1	13.7	14.2	19.2	19.8	19.7	20.3	20.7
	12H	12.6	13.1	13.1	13.6	14.1	19.2	19.7	19.7	20.2	20.7
8H	4H	12.7	13.3	13.2	13.8	14.2	19.4	20.0	19.9	20.5	20.9
	6H	12.7	13.2	13.2	13.7	14.1	19.7	20.2	20.2	20.7	21.2
	8H	12.6	13.1	13.2	13.6	14.1	19.8	20.2	20.3	20.7	21.2
	12H	12.6	13.0	13.1	13.5	14.0	19.7	20.1	20.3	20.6	21.2
12H	4H	12.7	13.2	13.2	13.7	14.2	19.5	20.0	19.9	20.5	20.9
	6H	12.6	13.1	13.2	13.5	14.1	19.8	20.2	20.3	20.7	21.2
	8H	12.6	13.0	13.1	13.5	14.0	19.8	20.2	20.3	20.7	21.3

Maximum UGR = 21.3

POLAR GRAPH



Maximum Candela = 1729 Located At Horizontal Angle = 0, Vertical Angle = 27.5
1 - Vertical Plane Through Horizontal Angles (0 - 180) (Through Max. Cd.)
2 - Horizontal Cone Through Vertical Angle (27.5) (Through Max. Cd.)