



## IES INDOOR REPORT

PHOTOMETRIC FILENAME : SR\_MR16LED\_12V\_5W.IES

### DESCRIPTION INFORMATION (From Photometric File)

IESNA:LM-63-1995

[ISSUEDATE] 3/29/2021

[MANUFAC] BeLuce Canada Inc.

[LAMP] MR16LED Lamp 12V 5W

[MORE] BeLuce REMOTE HEAD CAT

[MORE] LUMEN RATING = 570.75 LMS

[OTHER] EVERFINE GO-2000A\_V1 SYSTEM

[OTHER]	Gamma(deg)	Fz(lm)	Ft(lm)	%Lum	%Lamp
[OTHER]	0- 10	86.92	86.92	15.23	15.23
[OTHER]	10- 20	164.30	251.22	44.02	44.02
[OTHER]	20- 30	131.37	382.59	67.03	67.03
[OTHER]	30- 40	81.76	464.35	81.36	81.36
[OTHER]	40- 50	44.66	509.01	89.18	89.18
[OTHER]	50- 60	26.65	535.66	93.85	93.85
[OTHER]	60- 70	17.86	553.52	96.98	96.98
[OTHER]	70- 80	9.39	562.91	98.63	98.63
[OTHER]	80- 90	2.76	565.67	99.11	99.11
[OTHER]	90-100	0.13	565.80	99.13	99.13
[OTHER]	100-110	0.14	565.94	99.16	99.16
[OTHER]	110-120	0.26	566.19	99.20	99.20
[OTHER]	120-130	0.47	566.67	99.29	99.29
[OTHER]	130-140	0.79	567.46	99.42	99.42
[OTHER]	140-150	1.09	568.55	99.61	99.61
[OTHER]	150-160	1.11	569.66	99.81	99.81
[OTHER]	160-170	0.80	570.46	99.95	99.95
[OTHER]	170-180	0.29	570.75	100.00	100.00
[OTHER]					

### CHARACTERISTICS

Lumens Per Lamp	N.A. (absolute)
Total Lamp Lumens	N.A. (absolute)
Luminaire Lumens	578
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	123
Total Luminaire Watts	4.70497
Ballast Factor	1.00
CIE Type	Direct
Spacing Criterion (0-180)	0.58
Spacing Criterion (90-270)	0.50
Spacing Criterion (Diagonal)	0.62
Basic Luminous Shape	Rectangular
Luminous Length (0-180)	0.16 m
Luminous Width (90-270)	0.21 m
Luminous Height	0.00 m

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**LUMINANCE DATA (cd/sq.m)**

Angle In Degrees	Average 0-Deg	Average 45-Deg	Average 90-Deg
45	2356	2163	1902
55	1487	1386	1295
65	1161	1141	1109
75	909	878	754
85	768	691	454

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**CANDELA TABULATION**

	<u>0</u>	<u>30</u>	<u>60</u>	<u>90</u>	<u>120</u>	<u>150</u>	<u>180</u>	<u>210</u>	<u>240</u>	<u>270</u>
<b>0</b>	1025.11	1025.11	1025.11	1025.11	1025.11	1025.11	1025.11	1025.11	1025.11	1025.11
<b>5</b>	975.84	940.03	932.38	913.38	916.04	935.37	963.16	1001.67	928.15	1041.88
<b>10</b>	826.29	764.64	774.48	709.78	708.06	738.06	781.33	844.16	758.94	926.16
<b>15</b>	610.99	544.76	574.05	502.10	501.96	537.33	577.59	639.24	563.98	709.70
<b>20</b>	418.87	368.81	393.83	338.20	344.13	369.89	402.23	452.69	396.87	506.89
<b>25</b>	285.28	248.44	269.22	228.77	235.39	251.62	279.75	312.46	275.91	347.20
<b>30</b>	189.95	167.49	183.17	156.73	158.88	171.80	193.25	220.39	192.28	240.28
<b>35</b>	125.23	111.53	123.26	103.47	106.95	114.96	130.11	148.54	128.44	160.63
<b>40</b>	83.66	72.79	81.03	67.34	69.81	75.99	86.37	97.08	84.35	105.57
<b>45</b>	56.01	49.18	53.63	45.22	47.47	51.94	57.75	64.99	56.67	69.42
<b>50</b>	38.98	34.56	36.74	32.59	33.76	37.63	40.50	44.46	39.36	47.54
<b>55</b>	28.67	25.92	27.52	24.96	26.40	28.65	30.11	32.02	29.56	34.46
<b>60</b>	21.89	20.04	21.54	20.35	21.80	22.62	24.16	25.12	23.77	26.49
<b>65</b>	16.49	15.23	17.18	15.76	16.81	17.44	20.12	20.81	19.78	20.99
<b>70</b>	11.92	10.81	12.66	10.93	11.72	12.33	14.95	17.04	14.64	15.96
<b>75</b>	7.91	7.00	8.28	6.56	7.22	7.78	9.77	11.08	9.96	11.07
<b>80</b>	4.72	4.00	4.76	3.46	3.71	4.11	6.12	7.04	5.72	6.77
<b>85</b>	2.25	1.76	2.29	1.33	1.52	1.73	2.46	3.31	2.48	3.63
<b>90</b>	0.08	0.08	0.06	0.07	0.06	0.05	0.09	0.90	0.08	1.50
<b>95</b>	0.10	0.08	0.08	0.09	0.06	0.07	0.08	0.08	0.06	0.06
<b>100</b>	0.13	0.08	0.12	0.12	0.08	0.11	0.08	0.10	0.10	0.12
<b>105</b>	0.18	0.11	0.18	0.18	0.09	0.15	0.08	0.12	0.11	0.11
<b>110</b>	0.24	0.20	0.22	0.24	0.14	0.20	0.11	0.16	0.11	0.11
<b>115</b>	0.31	0.31	0.31	0.31	0.23	0.28	0.20	0.23	0.21	0.20
<b>120</b>	0.44	0.43	0.44	0.44	0.34	0.40	0.29	0.32	0.31	0.31
<b>125</b>	0.61	0.60	0.61	0.62	0.52	0.57	0.44	0.45	0.46	0.44
<b>130</b>	0.84	0.84	0.84	0.86	0.76	0.80	0.64	0.64	0.61	0.61
<b>135</b>	1.14	1.18	1.13	1.14	1.06	1.08	0.91	0.90	0.89	0.88
<b>140</b>	1.50	1.55	1.50	1.52	1.43	1.43	1.26	1.21	1.22	1.23
<b>145</b>	1.89	1.94	1.89	1.87	1.81	1.79	1.60	1.56	1.56	1.61
<b>150</b>	2.27	2.31	2.26	2.22	2.14	2.14	1.96	1.94	1.95	2.04
<b>155</b>	2.58	2.59	2.58	2.51	2.42	2.43	2.29	2.27	2.24	2.37
<b>160</b>	2.81	2.80	2.79	2.75	2.66	2.68	2.52	2.54	2.51	2.66
<b>165</b>	2.97	2.93	2.94	2.90	2.80	2.84	2.70	2.74	2.67	2.85
<b>170</b>	3.06	3.03	3.03	3.00	2.91	2.95	2.83	2.87	2.80	2.99
<b>175</b>	3.07	3.03	3.03	3.07	2.97	3.02	2.91	2.98	2.88	3.06
<b>180</b>	3.07	3.07	3.07	3.07	3.07	3.07	3.07	3.07	3.07	3.07

**Vert. Angles**      **Horizontal Angles**

	<u>300</u>	<u>330</u>	<u>360</u>
<b>0</b>	1025.11	1025.11	1025.11
<b>5</b>	1037.42	1012.51	975.84
<b>10</b>	923.00	879.54	826.29
<b>15</b>	713.57	676.39	610.99
<b>20</b>	511.08	472.75	418.87
<b>25</b>	345.85	323.87	285.28
<b>30</b>	230.75	216.78	189.95
<b>35</b>	154.92	139.06	125.23
<b>40</b>	100.68	89.39	83.66
<b>45</b>	65.93	59.64	56.01
<b>50</b>	45.07	40.81	38.98
<b>55</b>	32.52	29.50	28.67
<b>60</b>	24.91	22.12	21.89

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<b>65</b>	19.03	16.71	16.49
<b>70</b>	14.18	12.40	11.92
<b>75</b>	9.69	8.60	7.91
<b>80</b>	6.15	5.39	4.72
<b>85</b>	3.38	2.82	2.25
<b>90</b>	1.30	0.90	0.08
<b>95</b>	0.09	0.08	0.10
<b>100</b>	0.11	0.09	0.13
<b>105</b>	0.14	0.11	0.18
<b>110</b>	0.18	0.13	0.24
<b>115</b>	0.26	0.21	0.31
<b>120</b>	0.37	0.34	0.44
<b>125</b>	0.51	0.47	0.61
<b>130</b>	0.71	0.69	0.84
<b>135</b>	0.99	0.96	1.14
<b>140</b>	1.33	1.31	1.50
<b>145</b>	1.71	1.69	1.89
<b>150</b>	2.11	2.09	2.27
<b>155</b>	2.47	2.44	2.58
<b>160</b>	2.74	2.69	2.81
<b>165</b>	2.94	2.87	2.97
<b>170</b>	3.06	3.00	3.06
<b>175</b>	3.10	3.04	3.07
<b>180</b>	3.07	3.07	3.07

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**ZONAL LUMEN SUMMARY**

Zone	Lumens	%Lamp	%Fixt
0-20	253.38	N.A.	43.80
0-30	387.00	N.A.	67.00
0-40	470.08	N.A.	81.40
0-60	542.49	N.A.	93.90
0-80	569.85	N.A.	98.60
0-90	572.69	N.A.	99.10
10-90	485.59	N.A.	84.00
20-40	216.71	N.A.	37.50
20-50	262.18	N.A.	45.40
40-70	90.29	N.A.	15.60
60-80	27.36	N.A.	4.70
70-80	9.48	N.A.	1.60
80-90	2.84	N.A.	0.50
90-110	0.33	N.A.	0.10
90-120	0.59	N.A.	0.10
90-130	1.07	N.A.	0.20
90-150	2.96	N.A.	0.50
90-180	5.16	N.A.	0.90
110-180	4.83	N.A.	0.80
0-180	577.85	N.A.	100.00

Total Luminaire Efficiency = N.A. %

**ZONAL LUMEN SUMMARY**

Zone	Lumens
0-10	87.10
10-20	166.27
20-30	133.62
30-40	83.09
40-50	45.47
50-60	26.94
60-70	17.88
70-80	9.48
80-90	2.84
90-100	0.19
100-110	0.14
110-120	0.26
120-130	0.48
130-140	0.80
140-150	1.09
150-160	1.11
160-170	0.80
170-180	0.29

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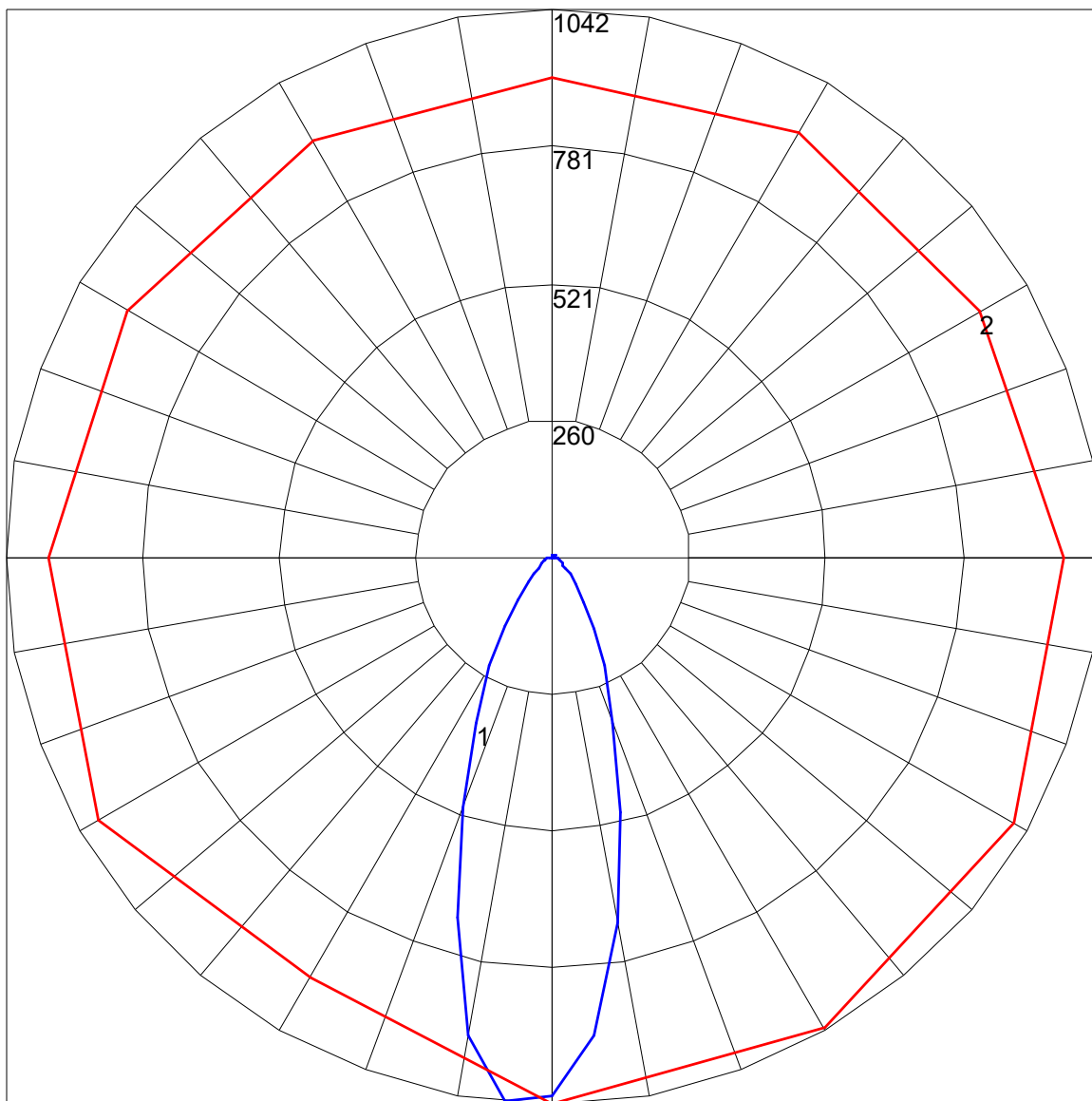
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## COEFFICIENTS OF UTILIZATION - ZONAL CAVITY METHOD

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	101	101	101	99
1	113	109	107	104	110	107	105	102	103	101	99	99	97	96	95	94	93	91
2	106	101	97	93	104	99	95	92	96	92	90	93	90	88	90	87	86	84
3	101	94	88	84	99	92	87	83	89	85	82	87	83	80	84	82	79	77
4	95	87	81	77	93	86	81	76	84	79	75	82	78	74	80	76	73	72
5	91	82	76	71	89	81	75	71	79	74	70	77	73	69	75	72	69	67
6	86	77	71	66	84	76	70	66	74	69	65	73	68	65	71	67	64	63
7	82	72	66	62	81	72	66	62	70	65	61	69	64	61	68	64	61	59
8	78	69	62	58	77	68	62	58	67	61	58	66	61	57	65	60	57	56
9	75	65	59	55	74	64	59	55	63	58	55	62	58	54	62	57	54	53
10	72	62	56	52	70	61	56	52	60	55	52	60	55	52	59	55	51	50

POLAR GRAPH



Maximum Candela = 1041.88 Located At Horizontal Angle = 270, Vertical Angle = 5  
# 1 - Vertical Plane Through Horizontal Angles (270 - 90) (Through Max. Cd.)  
# 2 - Horizontal Cone Through Vertical Angle (5) (Through Max. Cd.)