

# Photometrics Pro

## Luminaire Photometric Report

**Filename:** TF22 - 2x2 Troffer - Updated Q0124 - IES

**Manufacturer:** SARIN Energy Solutions

**Luminaire:** 2x2 Luminaires for Ambient Lighting of Interior Commercial Spaces

**Lamp Output:** 1 lamp, rated Lumens/lamp: 5450.2

**Max Candela:** 2,016.8 at Horizontal: 0°, Vertical: 0°

**Input Wattage:** 39.34

**Luminous Opening:** Rectangle (L: 22.05", W: 22.05")

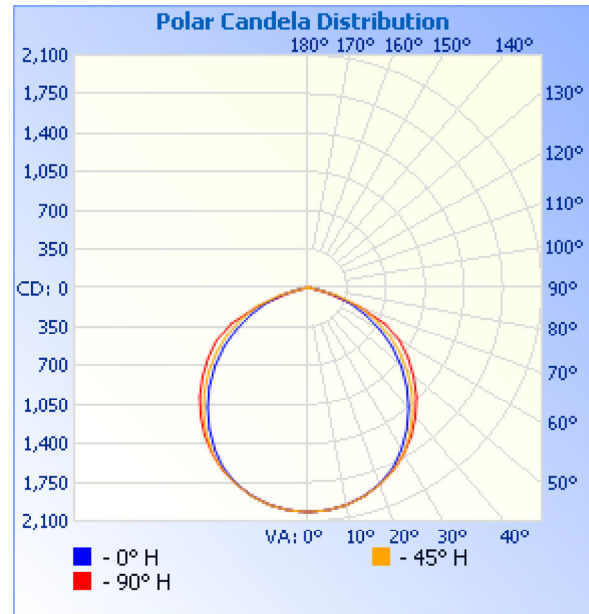
**Test:** LCZP23090164

**Test Date:** 2023/10/16

**Test Lab:** LCTECH 230920101002

**Photometry :** Type C

**Nema Type:** 7 X 7

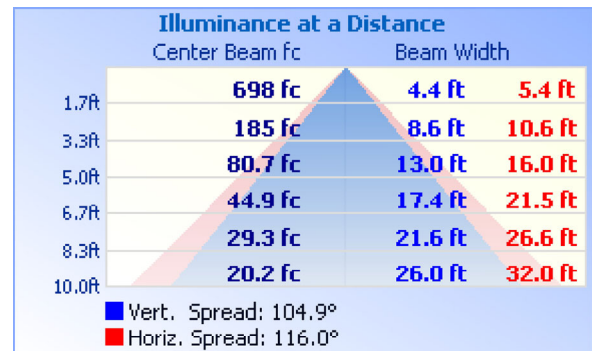
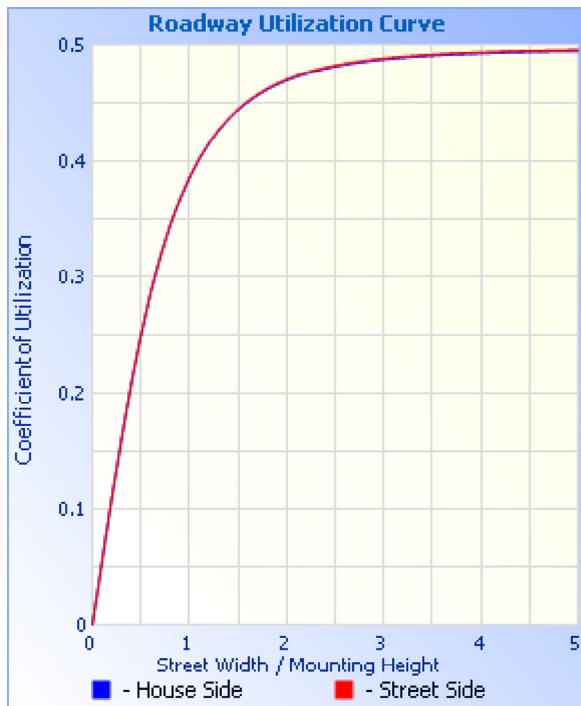
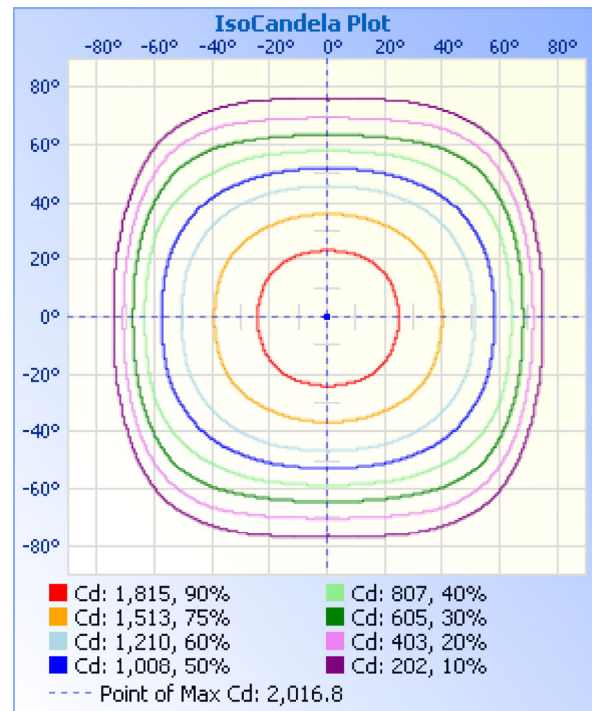
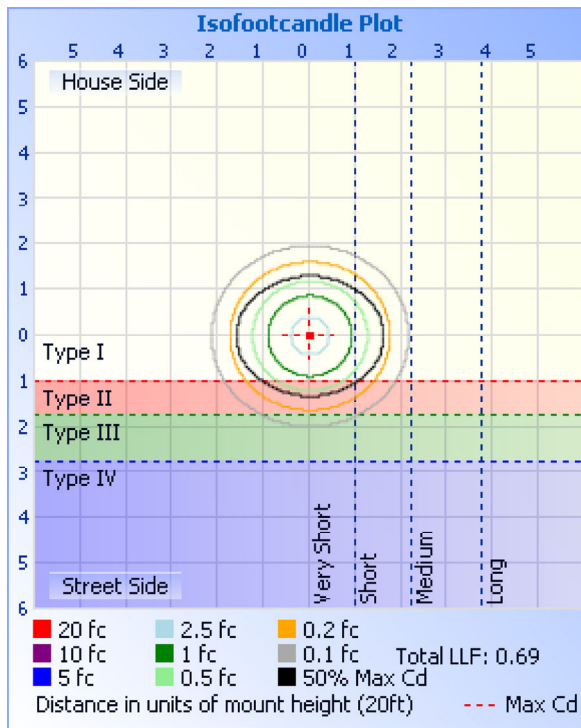


Roadway Summary		
Cutoff Classification:	CUTOFF	
Distribution:	Type VS	
Max Cd, 90 Deg Vert:	5.8	
Max Cd, 80 to <90 Deg:	106.2	
	Lumens	% Lamp
Downward Street Side:	2,715.2	49.8%
Downward House Side:	2,715.2	49.8%
Downward Total:	5,430.5	99.6%
Upward Street Side:	7.6	0.1%
Upward House Side:	7.6	0.1%
Upward Total:	15.3	0.3%
<b>Total Lumens:</b>	<b>5,445.7</b>	<b>99.9%</b>

Flood Summary				
	Efficiency	Lumens	Horizontal Spread	Vertical Spread
Field (10%):	98.1%	5,346.6	149.3	152.3
Beam (50%):	74.9%	4,079.7	116	104.9
<b>Total:</b>	<b>99.9%</b>	<b>5,443.5</b>		

Zonal Lumen Summary			
Zone	Lumens	% Lamp	% Luminaire
0-30	1,568.7	28.8%	28.8%
0-40	2,562.5	47%	47.1%
0-60	4,479.5	82.2%	82.3%
60-90	948.5	17.4%	17.4%
70-100	294.8	5.4%	5.4%
90-120	5.9	0.1%	0.1%
0-90	5,428.0	99.6%	99.7%
90-180	15.3	0.3%	0.3%
0-180	5,443.2	99.9%	100%

Lumens Per Zone					
Zone	Lumens	% Total	Zone	Lumens	% Total
0-10	190.8	3.5%	90-100	2.6	0%
10-20	547.5	10.1%	100-110	1.7	0%
20-30	830.4	15.3%	110-120	1.6	0%
30-40	993.8	18.3%	120-130	1.8	0%
40-50	1,016.1	18.7%	130-140	1.6	0%
50-60	900.9	16.6%	140-150	1.8	0%
60-70	656.3	12.1%	150-160	1.8	0%
70-80	263.3	4.8%	160-170	1.6	0%
80-90	28.9	0.5%	170-180	0.6	0%



**Coefficients Of Utilization - Zonal Cavity Method**

Effective Floor Cavity Reflectance: 20%

RCC %:	80				70				50			30			10			0
RW %:	70	50	30	0	70	50	30	0	50	30	20	50	30	20	50	30	20	0
RCR: 0	1.19	1.19	1.19	1.19	1.16	1.16	1.16	1.00	1.11	1.11	1.11	1.06	1.06	1.06	1.02	1.02	1.02	1.00
1	1.09	1.05	1.01	.98	1.07	1.03	.99	.86	.98	.96	.93	.95	.92	.90	.91	.89	.87	.85
2	1.00	.92	.86	.80	.97	.90	.84	.73	.87	.82	.77	.83	.79	.75	.80	.77	.74	.72
3	.91	.81	.73	.67	.89	.79	.72	.62	.76	.70	.65	.74	.68	.64	.71	.67	.63	.61

4	.84	.72	.63	.57	.81	.71	.63	.54	.68	.61	.56	.66	.60	.55	.64	.58	.54	.52
5	.77	.64	.56	.49	.75	.63	.55	.47	.61	.54	.48	.59	.53	.48	.57	.52	.47	.45
6	.71	.58	.49	.43	.69	.57	.49	.41	.55	.48	.42	.53	.47	.42	.52	.46	.41	.39
7	.66	.53	.44	.38	.64	.52	.44	.37	.50	.43	.37	.49	.42	.37	.47	.41	.37	.35
8	.61	.48	.40	.34	.60	.47	.39	.33	.46	.39	.33	.45	.38	.33	.43	.37	.33	.31
9	.57	.44	.36	.30	.56	.43	.36	.30	.42	.35	.30	.41	.35	.30	.40	.34	.30	.28
10	.54	.41	.33	.28	.52	.40	.33	.27	.39	.32	.27	.38	.32	.27	.37	.31	.27	.25

**Candela Table - Type C**

	0	15	30	45	60	75	90
0	<b>2017</b>	<b>2017</b>	<b>2017</b>	<b>2017</b>	<b>2017</b>	<b>2017</b>	<b>2017</b>
5	2010	2008	2009	2009	2009	2009	2009
10	1984	1983	1984	1986	1985	1985	1983
15	1941	1939	1941	1943	1943	1944	1942
20	1879	1880	1882	1884	1885	1885	1882
25	1792	1792	1804	1810	1813	1809	1812
30	1676	1681	1695	1717	1735	1725	1719
35	1548	1552	1571	1597	1620	1622	1620
40	1405	1414	1432	1463	1497	1506	1502
45	1256	1259	1285	1321	1361	1377	1377
50	1092	1098	1125	1164	1209	1240	1238
55	922	931	960	1003	1054	1095	1097
60	745	757	807	836	890	943	950
65	572	582	614	665	726	774	765
70	403	409	443	494	512	494	486
75	235	266	277	269	228	161	179
80	89	96	106	72	43	28	25
85	17	18	20	17	16	16	15
90	5	5	5	5	4	4	6
95	1	1	1	2	2	2	2
100	1	1	2	2	2	2	2
105	1	1	2	2	2	2	2
110	1	1	1	2	2	2	2
115	1	1	1	1	2	2	2
120	1	1	1	2	2	2	2
125	2	2	2	2	2	3	3
130	2	2	2	2	2	3	3
135	2	2	2	2	2	2	2
140	2	2	2	2	2	2	3
145	3	3	3	3	3	3	3
150	3	3	3	3	3	3	4
155	4	4	4	4	4	4	4
160	5	5	5	5	5	5	5
165	6	6	6	6	6	6	6
170	7	7	7	7	7	7	7
175	7	7	7	7	7	7	7
180	4	4	4	4	4	4	4

**Luminaire Report Summary**

IESNA:LM-63-2002  
[TEST] LCZP23090164  
[TESTDATE] 2023/10/16  
[TESTLAB] LCTECH 230920101002  
[ISSUE DATE] 2023/10/16  
[MANUFAC] SARIN Energy Solutions  
[LUMINAIRE] 2x2 Luminaires for Ambient Lighting of Interior Commercial Spaces  
[\_TOTALLUMINAIRELUMENS] 5443.2  
[LUMELE] 120.02 0.33 39.34 0.9927  
FILE: CANDELA MULTIPLIER: 1  
FILE: VERTICAL ANGLES: 37, HORIZONTAL ANGLES: 7  
FILE: COORDINATE SYSTEM: TYPE C  
FILE: UNIT OF MEASURE: METRIC  
FILE: BALLAST FACTOR: 1

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Reported data calculated from manufacturer's data file, based on IES recommended methods.