

Photometrics Pro

Luminaire Photometric Report

Filename: TF24 - 2x4 Troffer - Updated Q0124 - IES

Manufacturer: SARIN Energy Solutions

Luminaire: 2x4 Luminaires for Ambient Lighting of Interior Commercial Spaces

Lamp Output: 1 lamp, rated Lumens/lamp: 9400.5

Max Candela: 3,479.0 at Horizontal: 0°, Vertical: 0°

Input Wattage: 67.98

Luminous Opening: Rectangle (L: 46.46", W: 22.05")

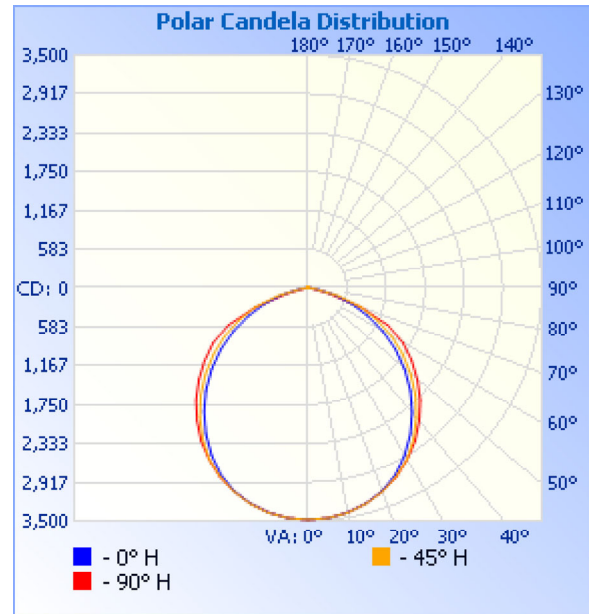
Test: LCZP23090165

Test Date: 2023/10/16

Test Lab: LCTECH 230920101004

Photometry : Type C

Nema Type: 7 X 7

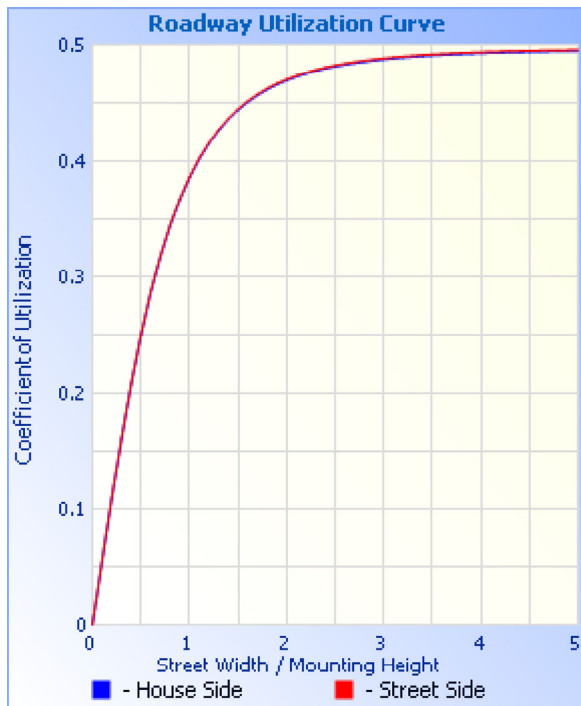
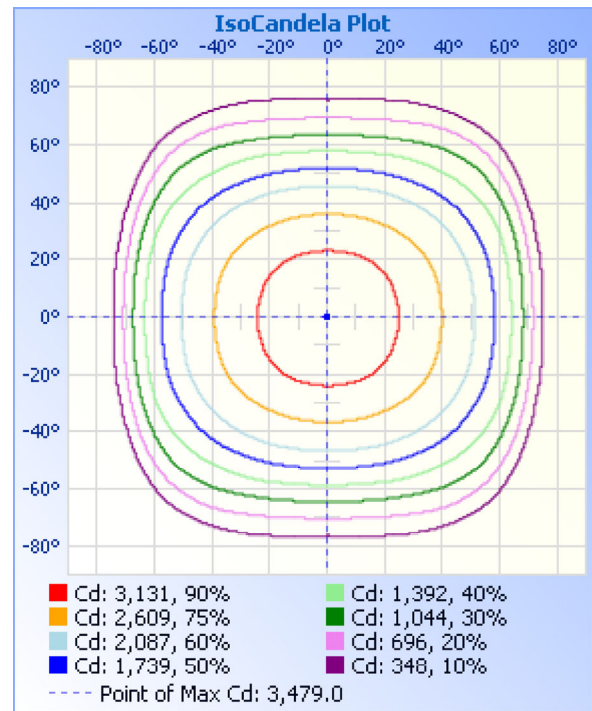
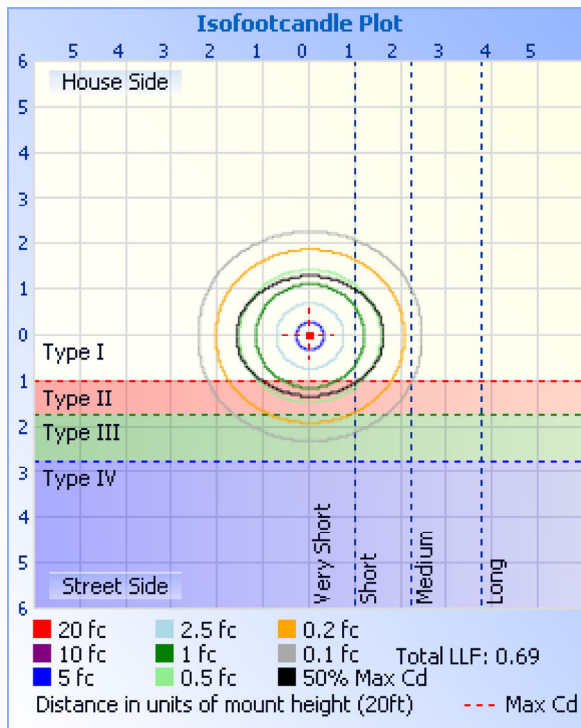


Roadway Summary		
Cutoff Classification:	CUTOFF	
Distribution:	Type VS	
Max Cd, 90 Deg Vert:	9.8	
Max Cd, 80 to <90 Deg:	183.4	
	Lumens	% Lamp
Downward Street Side:	4,683.8	49.8%
Downward House Side:	4,683.8	49.8%
Downward Total:	9,367.5	99.6%
Upward Street Side:	12.7	0.1%
Upward House Side:	12.7	0.1%
Upward Total:	25.4	0.3%
Total Lumens:	9,392.9	99.9%

Flood Summary				
	Efficiency	Lumens	Horizontal Spread	Vertical Spread
Field (10%):	98.1%	9,222.8	149.3	152.3
Beam (50%):	74.9%	7,037.5	116	104.9
Total:	99.9%	9,389.1		

Zonal Lumen Summary			
Zone	Lumens	% Lamp	% Luminaire
0-30	2,706.0	28.8%	28.8%
0-40	4,420.3	47%	47.1%
0-60	7,727.1	82.2%	82.3%
60-90	1,636.1	17.4%	17.4%
70-100	508.4	5.4%	5.4%
90-120	10.1	0.1%	0.1%
0-90	9,363.2	99.6%	99.7%
90-180	25.4	0.3%	0.3%
0-180	9,388.6	99.9%	100%

Lumens Per Zone					
Zone	Lumens	% Total	Zone	Lumens	% Total
0-10	329.1	3.5%	90-100	4.5	0%
10-20	944.4	10.1%	100-110	3.0	0%
20-30	1,432.5	15.3%	110-120	2.6	0%
30-40	1,714.3	18.3%	120-130	2.9	0%
40-50	1,752.8	18.7%	130-140	2.5	0%
50-60	1,554.0	16.6%	140-150	3.1	0%
60-70	1,132.2	12.1%	150-160	3.1	0%
70-80	454.2	4.8%	160-170	2.7	0%
80-90	49.8	0.5%	170-180	1.1	0%



Illuminance at a Distance

	Center Beam fc	Beam Width	
1.7R	1,204 fc	4.4 ft	5.4 ft
3.3R	319 fc	8.6 ft	10.6 ft
5.0R	139 fc	13.0 ft	16.0 ft
6.7R	77.5 fc	17.4 ft	21.5 ft
8.3R	50.5 fc	21.6 ft	26.6 ft
10.0R	34.8 fc	26.0 ft	32.0 ft

Vert. Spread: 104.9°
Horiz. Spread: 116.0°

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	3479	3479	3479	3479	3479	3479	3479
5	3466	3464	3465	3466	3466	3465	3465
10	3422	3420	3422	3425	3425	3424	3421
15	3347	3345	3347	3352	3351	3352	3349
20	3241	3242	3247	3249	3252	3252	3246
25	3090	3091	3111	3122	3127	3121	3127
30	2890	2899	2924	2962	2994	2976	2965
35	2670	2677	2710	2754	2795	2798	2793
40	2423	2438	2470	2524	2582	2598	2590
45	2165	2172	2216	2278	2347	2377	2376
50	1883	1893	1940	2008	2087	2140	2136
55	1590	1607	1656	1730	1819	1889	1892
60	1284	1305	1392	1442	1536	1627	1639
65	987	1004	1060	1147	1252	1335	1319
70	696	706	765	853	884	852	839
75	405	458	477	464	393	278	308
80	154	165	183	124	74	48	44
85	30	32	34	30	28	27	25
90	8	8	9	8	7	7	10
95	2	2	2	3	3	3	3
100	2	2	3	3	3	3	3
105	2	2	3	3	3	3	3
110	2	2	2	3	3	3	3
115	2	2	2	2	3	3	3
120	2	2	2	3	3	4	4
125	3	3	3	3	4	4	4
130	4	3	3	4	4	4	4
135	3	3	3	3	3	3	4
140	4	4	4	4	4	4	4
145	5	4	5	5	5	5	5
150	5	5	5	5	5	5	6
155	7	7	7	7	7	7	7
160	8	8	8	8	8	8	8
165	10	10	10	10	10	10	10
170	11	11	11	11	11	11	11
175	12	12	12	12	12	12	12
180	6	6	6	6	6	6	6

Luminaire Report Summary

IESNA:LM-63-2002
[TEST] LCZP23090165
[TESTDATE] 2023/10/16
[TESTLAB] LCTECH 230920101004
[ISSUE DATE] 2023/10/16
[MANUFAC] SARIN Energy Solutions
[LUMINAIRE] 2x4 Luminaires for Ambient Lighting of Interior Commercial Spaces
[_TOTALLUMINAIRELUMENS] 9388.6
[LUMELE] 119.98 0.571 67.98 0.9925
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.