

Indoor Distribution Test Report

Spectrum Lighting Inc.

994 Jefferson Street
Fall River, MA 02721
+1.508.678.2303

Spectrum Lighting Photometric Lab

Luminaire

TS - RA25 - 13L - 35HK - ND - xx -xx - MW

Track light for accent, display and general illumination.

Test Number

TSRA25-2

Test Date

2/18/25

The results contained in this report pertain only to this IES file.

Summary of Results

Power

Input Watts	13.65 W
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Lumen Output

Output Lumens	1217
Efficacy	89.14 lm/W

Luminous Dimensions

0° - 180° Size	0
90° - 270° Size	0.15
Height	0.46

Spacing Criterion

Two luminaires, plane 0°	0.43
Two luminaires, plane 90°	0.44
Four luminaires	0.43

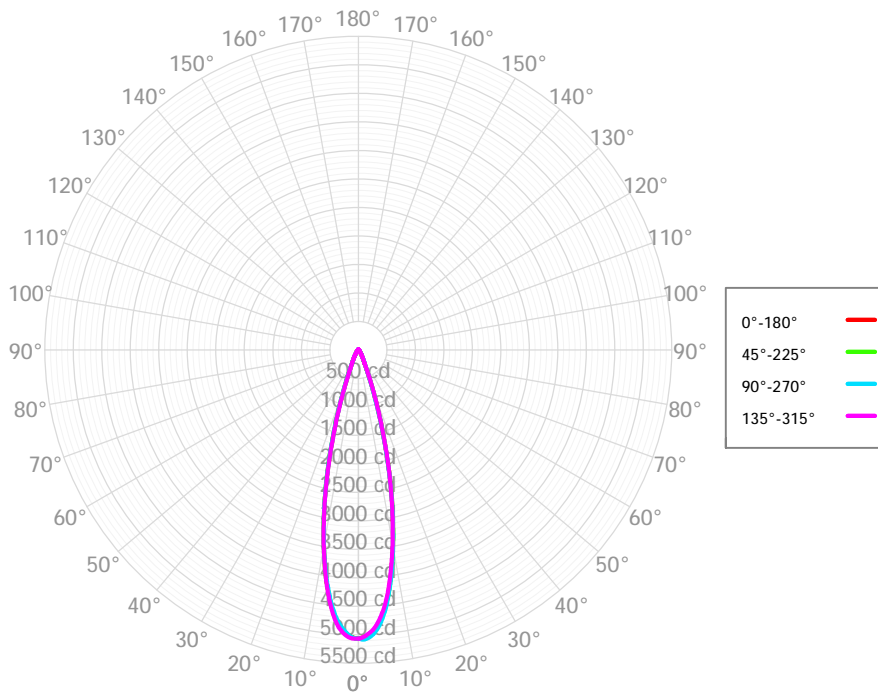
Full Beam Angle

0° - 180°	26°
90° - 270°	26°

IES File Header Contents

Keyword	Value
TEST	TSRA25-2
TESTLAB	Spectrum Lighting Photometric Lab.
MANUFAC	Spectrum Lighting
TESTDATE	2/18/25
ISSUEDATE	2/18/25
LUMCAT	TS - RA25 - 13L - 35HK - ND - xx -xx - MW
LUMINAIRE	Track light for accent, display and general illumination.

Candela Polar Plot



Zonal Lumen Summary

Zone	Lumens	% Fixture	Zone	Lumens	% Fixture
0.00° - 10.00°	409.85	33.68%	90.00° - 100.00°	5.15	0.42%
10.00° - 20.00°	524.93	43.14%	100.00° - 110.00°	5.04	0.41%
20.00° - 30.00°	140.42	11.54%	100.00° - 120.00°	9.71	0.80%
30.00° - 40.00°	51.88	4.26%	120.00° - 130.00°	4.52	0.37%
40.00° - 50.00°	27.00	2.22%	130.00° - 140.00°	3.87	0.32%
50.00° - 60.00°	13.40	1.10%	140.00° - 150.00°	3.37	0.28%
60.00° - 70.00°	7.18	0.59%	150.00° - 160.00°	2.63	0.22%
70.00° - 80.00°	5.30	0.44%	160.00° - 170.00°	1.73	0.14%
80.00° - 90.00°	5.15	0.42%	170.00° - 180.00°	0.62	0.05%
0.00° - 90.00°	1185.11	97.40%	0.00° - 180.00°	1216.73	100.00%

Candela Distribution

	0.00°	45.00°	90.00°	135.00°	180.00°	225.00°	270.00°	315.00°	360.00°
0.00°	5066.25	5066.25	5066.25	5066.25	5066.25	5066.25	5066.25	5066.25	5066.25
1.00°	5041.28	5065.85	5083.03	5066.00	5051.43	5051.13	5052.91	5039.04	5041.28
2.00°	5003.08	5036.37	5055.83	5042.16	5006.44	5006.94	5001.73	4984.68	5003.08
3.00°	4942.11	4967.94	4994.20	4977.99	4944.90	4933.56	4914.79	4917.59	4942.11
4.00°	4835.68	4865.38	4894.13	4883.41	4847.69	4829.91	4814.94	4809.78	4835.68
5.00°	4693.67	4726.86	4752.72	4740.45	4714.54	4689.99	4665.85	4664.29	4693.67
6.00°	4519.94	4549.50	4566.66	4546.89	4526.48	4514.18	4485.84	4493.07	4519.94
7.00°	4296.97	4331.90	4338.96	4323.81	4302.29	4296.22	4265.02	4273.14	4296.97
8.00°	4043.92	4074.27	4085.37	4066.05	4052.35	4058.24	4029.89	4017.68	4043.92
9.00°	3768.95	3805.78	3806.11	3782.77	3771.13	3786.09	3761.71	3748.57	3768.95
10.00°	3485.97	3507.15	3505.96	3494.34	3484.36	3493.02	3480.33	3459.41	3485.97
11.00°	3182.59	3203.05	3197.76	3189.56	3178.29	3196.70	3179.78	3164.41	3182.59
12.00°	2874.03	2892.04	2889.85	2874.99	2874.17	2893.84	2882.00	2865.51	2874.03
13.00°	2567.84	2588.29	2577.37	2563.02	2569.53	2584.93	2575.72	2562.04	2567.84
14.00°	2260.09	2266.34	2248.49	2243.60	2251.98	2285.17	2267.68	2262.37	2260.09
15.00°	1945.42	1946.08	1937.02	1927.43	1941.37	1971.16	1964.81	1961.84	1945.42
16.00°	1656.55	1640.13	1638.40	1629.80	1656.05	1672.19	1664.04	1665.81	1656.55
17.00°	1393.14	1381.43	1375.11	1363.22	1384.34	1401.52	1397.80	1397.63	1393.14
18.00°	1154.63	1138.72	1137.03	1120.79	1141.99	1164.39	1160.85	1161.87	1154.63
19.00°	936.21	922.11	910.42	907.72	928.13	949.90	950.70	948.70	936.21
20.00°	742.73	733.57	727.89	724.45	749.33	769.20	761.77	759.65	742.73
21.00°	589.55	573.74	579.95	576.95	597.12	617.49	613.38	610.69	589.55
22.00°	461.17	457.16	458.17	453.19	477.91	493.41	490.05	481.22	461.17
23.00°	361.89	360.66	366.37	366.02	378.74	393.92	393.18	379.60	361.89
24.00°	295.05	292.77	304.42	303.38	310.11	322.36	319.83	308.63	295.05
25.00°	245.06	252.29	262.77	262.96	259.61	269.47	266.29	254.83	245.06
26.00°	212.70	220.82	234.79	229.01	228.14	232.22	232.22	223.17	212.70
27.00°	189.17	194.57	200.94	201.67	201.20	206.03	201.74	193.51	189.17
28.00°	167.54	171.02	177.80	177.67	179.26	182.86	179.10	171.42	167.54
29.00°	148.38	153.01	158.25	157.55	159.28	159.94	160.56	152.77	148.38
30.00°	130.29	133.29	140.82	134.71	137.35	140.18	144.69	135.66	130.29
31.00°	118.24	122.19	125.23	125.83	127.84	126.13	126.37	122.28	118.24
32.00°	105.69	110.21	113.05	109.75	111.83	113.78	116.64	108.94	105.69
33.00°	96.79	95.23	103.21	98.28	104.21	102.47	100.06	95.71	96.79
34.00°	78.45	87.74	89.59	85.58	88.05	88.11	90.24	86.80	78.45
35.00°	74.71	78.61	83.19	76.31	79.80	84.22	82.88	78.57	74.71
36.00°	65.79	70.85	74.63	69.05	73.04	72.81	72.65	72.68	65.79
37.00°	59.21	62.53	66.21	64.37	63.12	64.27	64.74	63.79	59.21
38.00°	54.23	57.04	64.38	61.34	61.88	59.26	61.45	56.59	54.23
39.00°	50.15	54.74	52.43	57.92	55.75	54.54	58.43	53.50	50.15
40.00°	47.58	50.34	48.77	50.62	51.71	49.75	50.65	49.91	47.58
41.00°	47.27	47.28	49.62	45.10	45.70	44.27	45.96	46.14	47.27
42.00°	44.52	41.63	47.11	43.75	40.69	43.90	41.51	42.14	44.52
43.00°	38.65	36.39	41.95	41.76	38.50	40.65	41.59	39.47	38.65

Coefficients of Utilization – Zonal Cavity Method

Values are lumens delivered to the workplane.

RCR	pfc	20%	20%	20%	20%	20%	20%	20%	20%	20%	20%	20%	20%	20%	20%	20%	20%	20%	0%
	pcc	80%	80%	80%	80%	70%	70%	70%	70%	50%	50%	50%	30%	30%	30%	10%	10%	10%	0%
	pw	70%	50%	30%	10%	70%	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	30%
	0	1441	1441	1441	1441	1404	1404	1404	1404	1334	1334	1334	1271	1271	1271	1213	1213	1213	1185
	1	1386	1357	1332	1308	1353	1328	1305	1285	1274	1256	1240	1224	1210	1198	1178	1167	1158	1142
	2	1335	1287	1247	1214	1307	1264	1228	1198	1221	1192	1167	1181	1158	1138	1144	1126	1110	1102
	3	1288	1227	1179	1141	1263	1208	1165	1130	1173	1138	1109	1141	1112	1088	1111	1088	1068	1066
	4	1245	1174	1123	1083	1223	1159	1112	1075	1131	1091	1060	1104	1071	1044	1080	1052	1030	1032
	5	1205	1128	1074	1035	1185	1116	1066	1029	1092	1050	1017	1070	1034	1006	1050	1019	995	1000
	6	1167	1087	1032	993	1150	1076	1026	989	1057	1013	980	1038	1001	972	1021	989	963	971
	7	1133	1049	995	957	1117	1041	990	954	1024	980	947	1009	970	941	994	960	934	944
	8	1100	1015	962	925	1086	1008	958	923	994	949	917	981	941	912	968	933	907	918
	9	1070	984	932	897	1057	978	928	894	966	921	890	955	915	886	944	908	882	894
	10	1041	956	905	871	1030	950	902	869	940	896	865	930	890	862	921	885	859	872

Cone of Light

Mtg Height	Light Level	Beam Diameter
5.5 ft	167.5 fc	2.6 ft
6.5 ft	119.9 fc	3.0 ft
7.5 ft	90.1 fc	3.5 ft
8.0 ft	79.2 fc	3.7 ft
10.0 ft	50.7 fc	4.6 ft
12.0 ft	35.2 fc	5.6 ft
14.0 ft	25.8 fc	6.5 ft
16.0 ft	19.8 fc	7.4 ft
20.0 ft	12.7 fc	9.3 ft
24.0 ft	8.8 fc	11.2 ft
28.0 ft	6.5 fc	13.0 ft

Average Luminaire Luminance [cd/m²]

	0.00°	45.00°	90.00°
0.00°	0	0	0
45.00°	7200	11705	125388162003900350464
55.00°	3048	3883	39793393237962743808
65.00°	1323	2093	22577134817337159680
75.00°	725	1507	12988433633834471424
85.00°	651	1053	11091842579462281216

UGR CIE 190:2010

Ceiling reflectance		0.7	0.7	0.5	0.5	0.3	0.7	0.7	0.5	0.5	0.3
Wall reflectance		0.5	0.3	0.5	0.3	0.3	0.5	0.3	0.5	0.3	0.3
Plane reflectance		0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
Room dimensions		Viewing C0-180					Viewing C90-270				
2H	2H	6.4	7.3	6.8	7.7	8.0	10.7	11.6	11.1	12.0	12.4
	3H	7.1	7.9	7.5	8.3	8.7	11.5	12.3	12.0	12.7	13.2
	4H	7.4	8.2	7.9	8.6	9.1	12.1	12.9	12.6	13.3	13.7
	6H	7.8	8.5	8.2	8.9	9.3	13.1	13.8	13.6	14.2	14.7
	8H	8.0	8.6	8.5	9.1	9.6	13.7	14.3	14.2	14.8	15.3
	12H	8.2	8.8	8.7	9.2	9.7	14.6	15.2	15.0	15.6	16.1
4H	2H	6.7	7.5	7.2	7.9	8.4	10.5	11.3	11.0	11.7	12.1
	3H	7.6	8.2	8.1	8.7	9.2	11.5	12.1	11.9	12.5	13.0
	4H	8.1	8.6	8.6	9.1	9.6	12.1	12.7	12.6	13.2	13.7
	6H	8.5	9.0	9.1	9.5	10.0	13.3	13.7	13.8	14.2	14.8
	8H	8.8	9.3	9.4	9.8	10.3	13.9	14.3	14.4	14.8	15.4
	12H	9.1	9.5	9.7	10.0	10.6	14.9	15.2	15.4	15.8	16.3
8H	4H	8.3	8.7	8.8	9.2	9.7	12.1	12.5	12.6	13.0	13.5
	6H	8.9	9.3	9.5	9.8	10.4	13.3	13.6	13.8	14.2	14.7
	8H	9.4	9.7	10.0	10.3	10.8	13.9	14.3	14.5	14.8	15.4
	12H	9.8	10.1	10.4	10.6	11.2	15.0	15.3	15.6	15.8	16.5
12H	4H	8.3	8.7	8.9	9.2	9.8	12.0	12.4	12.5	12.9	13.5
	6H	9.1	9.4	9.7	9.9	10.5	13.2	13.5	13.8	14.1	14.7
	8H	9.6	9.9	10.2	10.4	11.1	14.0	14.2	14.5	14.8	15.4

Corrected UGR values based on total output energy
 SHR = 1.0

Corrected UGR values based on total output lumens

SHR = 1.0