

Indoor Distribution Test Report

Spectrum Lighting Inc.

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Spectrum Lighting Photometric Lab

Luminaire

STT3PC 40L 35K ND XX SO
Nom 3" diam Euro tracklight

Test Number

SP-00596_22

Test Date

7/10/2019

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

Summary of Results

Power

Input Watts	30.3 W
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Lumen Output

Output Lumens	2029
Efficacy	66.97 lm/W

Luminous Dimensions

0° - 180° Size	-0.23
90° - 270° Size	-0.23
Height	0

Spacing Criterion

Two luminaires, plane 0°	0.49
Two luminaires, plane 90°	0.49
Four luminaires	0.53

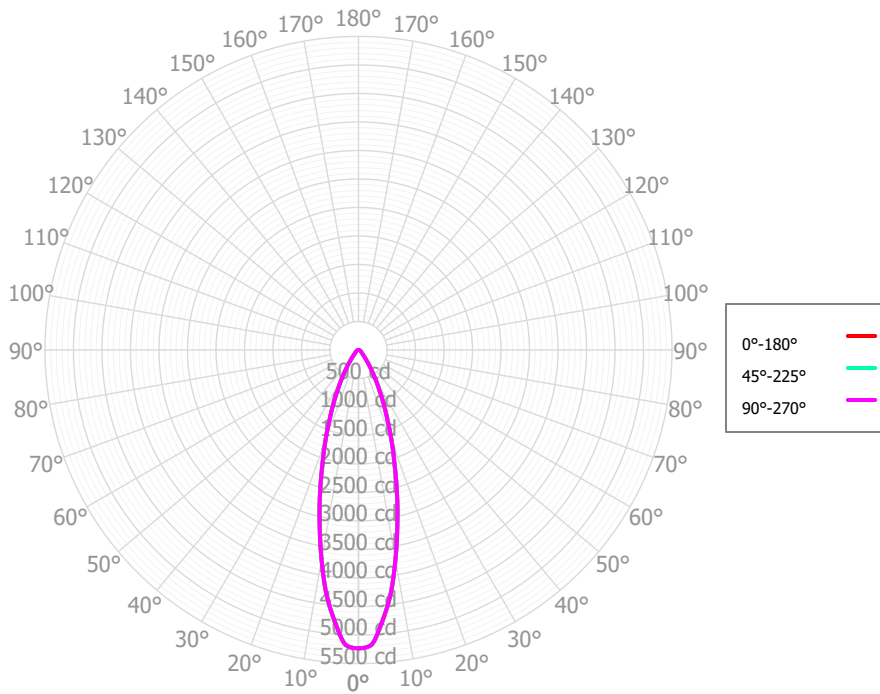
Full Beam Angle

0° - 180°	30°
90° - 270°	30°

IES File Header Contents

Keyword	Value
TEST	SP-00596_22
TESTLAB	Spectrum Lighting Photometric lab, VLS-245-981
MANUFAC	Spectrum Lighting
TESTDATE	7/10/2019
ISSUEDATE	5/28/2020
LUMCAT	STT3PC 40L 35K ND XX SO
LUMINAIRE	Nom 3" diam Euro tracklight
OTHER	Beam Angle: 29.9 degrees
OTHER	Narrow Beam, Solite lens
LAMPCAT	N/A
LAMP	N/A, 80 CRI
OTHER	CCT Output Multipliers: 27K x 0.96, 30K x 0.99, 40K x 1.04
OTHER	Total luminaire wattage is approximate
OTHER	This report prepared by Spectrum Lighting
_CRI	80+
_CCTMULT	27K x 0.96, 30K x 0.99, 40K x 1.04
_LAMPMULT	20L x 0.47, 30L x 0.73

Candela Polar Plot



Zonal Lumen Summary

Zone	Lumens	% Fixture	Zone	Lumens	% Fixture
0.00° - 10.00°	440.39	21.56%	90.00° - 100.00°	0.07	0.00%
10.00° - 20.00°	713.62	34.94%	100.00° - 110.00°	0.00	0.00%
20.00° - 30.00°	480.47	23.53%	100.00° - 120.00°	0.00	0.00%
30.00° - 40.00°	210.47	10.31%	120.00° - 130.00°	0.00	0.00%
40.00° - 50.00°	85.38	4.18%	130.00° - 140.00°	0.00	0.00%
50.00° - 60.00°	51.40	2.52%	140.00° - 150.00°	0.00	0.00%
60.00° - 70.00°	36.91	1.81%	150.00° - 160.00°	0.00	0.00%
70.00° - 80.00°	18.74	0.92%	160.00° - 170.00°	0.00	0.00%
80.00° - 90.00°	4.88	0.24%	170.00° - 180.00°	0.00	0.00%
0.00° - 90.00°	2,042.27	100.00%	0.00° - 180.00°	2,042.34	100.00%

Candela Distribution

	0.00°	45.00°	90.00°
0.00°	5,232.54	5,232.54	5,232.54
2.50°	5,175.29	5,179.64	5,179.64
5.00°	4,787.89	4,776.89	4,776.89
7.50°	4,313.03	4,322.54	4,322.54
10.00°	3,734.27	3,730.83	3,730.83
12.50°	3,133.35	3,153.08	3,153.08
15.00°	2,609.37	2,607.41	2,607.41
17.50°	2,098.52	2,106.20	2,106.20
20.00°	1,706.99	1,692.57	1,692.57
22.50°	1,330.55	1,325.12	1,325.12
25.00°	1,060.28	1,036.23	1,036.23
27.50°	799.08	786.24	786.24
30.00°	616.65	594.56	594.56
32.50°	438.23	436.02	436.02
35.00°	332.74	320.74	320.74
37.50°	229.34	232.45	232.45
40.00°	178.01	174.90	174.90
42.50°	128.15	132.52	132.52
45.00°	106.81	105.47	105.47
47.50°	86.35	85.74	85.74
50.00°	75.78	72.47	72.47
52.50°	65.59	62.78	62.78
55.00°	58.40	55.84	55.84
57.50°	51.64	50.38	50.38
60.00°	47.36	45.91	45.91
62.50°	43.26	41.40	41.40
65.00°	40.06	36.87	36.87
67.50°	36.06	31.88	31.88
70.00°	29.83	26.70	26.70
72.50°	24.59	21.74	21.74
75.00°	20.40	16.67	16.67
77.50°	16.73	11.18	11.18
80.00°	12.66	8.64	8.64
82.50°	8.69	6.52	6.52
85.00°	5.90	3.52	3.52
87.50°	3.33	1.15	1.15
90.00°	1.04	0.35	0.35
92.50°	0.00	0.00	0.00
95.00°	0.00	0.00	0.00
97.50°	0.00	0.00	0.00
100.00°	0.00	0.00	0.00
102.50°	0.00	0.00	0.00
105.00°	0.00	0.00	0.00
107.50°	0.00	0.00	0.00
110.00°	0.00	0.00	0.00
112.50°	0.00	0.00	0.00

Coefficients of Utilization – Zonal Cavity Method

Values are lumens delivered to the workplane.

	pfc	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%	0%
	pw	70%	50%	30%	10%	70%	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	30%
RCR	0	2,431	2,431	2,431	2,431	2,375	2,375	2,375	2,375	2,269	2,269	2,269	2,173	2,173	2,173	2,084	2,084	2,042
	1	2,322	2,268	2,219	2,174	2,272	2,224	2,180	2,140	2,141	2,106	2,074	2,065	2,038	2,012	1,996	1,974	1,935
	2	2,217	2,122	2,044	1,979	2,172	2,087	2,017	1,956	2,022	1,964	1,914	1,961	1,914	1,873	1,905	1,868	1,831
	3	2,118	1,995	1,901	1,825	2,078	1,967	1,880	1,810	1,914	1,842	1,782	1,866	1,805	1,754	1,820	1,770	1,736
	4	2,026	1,884	1,780	1,700	1,990	1,861	1,765	1,690	1,818	1,736	1,671	1,778	1,708	1,651	1,741	1,682	1,651
	5	1,940	1,785	1,677	1,596	1,909	1,766	1,665	1,589	1,731	1,643	1,575	1,698	1,622	1,562	1,667	1,601	1,573
	6	1,861	1,697	1,587	1,508	1,833	1,681	1,578	1,502	1,652	1,561	1,493	1,624	1,544	1,483	1,598	1,528	1,502
	7	1,787	1,617	1,507	1,430	1,762	1,604	1,500	1,427	1,580	1,487	1,419	1,556	1,474	1,412	1,535	1,461	1,437
	8	1,719	1,546	1,437	1,362	1,696	1,535	1,431	1,359	1,514	1,420	1,354	1,494	1,410	1,349	1,475	1,400	1,378
	9	1,655	1,480	1,373	1,301	1,634	1,471	1,369	1,299	1,453	1,360	1,295	1,436	1,352	1,291	1,420	1,343	1,323
	10	1,595	1,421	1,316	1,247	1,577	1,413	1,312	1,245	1,397	1,305	1,242	1,382	1,298	1,239	1,368	1,291	1,273

Cone of Light

Mtg Height	Light Level	Beam Diameter
5.5 ft	173.0 fc	2.9 ft
6.5 ft	123.8 fc	3.5 ft
7.5 ft	93.0 fc	4.0 ft
8.0 ft	81.8 fc	4.3 ft
10.0 ft	52.3 fc	5.3 ft
12.0 ft	36.3 fc	6.4 ft
14.0 ft	26.7 fc	7.5 ft
16.0 ft	20.4 fc	8.6 ft
20.0 ft	13.1 fc	10.7 ft
24.0 ft	9.1 fc	12.8 ft
28.0 ft	6.7 fc	15.0 ft

Average Luminaire Luminance [cd/m²]

	0.00°	45.00°	90.00°
0.00°	1,355,616	1,355,616	1,355,616
45.00°	39,133	38,642	38,642
55.00°	26,380	25,224	25,224
65.00°	24,555	22,600	22,600
75.00°	20,421	16,685	16,685
85.00°	17,534	10,459	10,459

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		Viewed crosswise					Viewed endwise				
2H	2H	16.7	17.7	17.1	18.0	18.4	16.6	17.6	17.0	17.9	18.3
	3H	18.5	19.4	18.9	19.8	20.1	18.2	19.1	18.6	19.4	19.8
	4H	19.1	19.9	19.5	20.3	20.7	18.7	19.5	19.1	19.9	20.2
	6H	19.5	20.3	20.0	20.7	21.1	18.9	19.6	19.3	20.0	20.4
	8H	19.7	20.4	20.1	20.8	21.2	18.9	19.7	19.4	20.1	20.5
	12H	19.8	20.4	20.2	20.8	21.3	19.0	19.7	19.4	20.0	20.5
4H	2H	17.2	18.0	17.6	18.4	18.8	17.1	18.0	17.5	18.3	18.7
	3H	19.1	19.8	19.6	20.2	20.6	18.9	19.6	19.3	20.0	20.4
	4H	19.8	20.4	20.3	20.9	21.3	19.4	20.0	19.9	20.5	20.9
	6H	20.3	20.9	20.8	21.3	21.8	19.7	20.2	20.2	20.7	21.2
	8H	20.5	21.0	21.0	21.5	21.9	19.8	20.3	20.3	20.7	21.2
	12H	20.6	21.1	21.1	21.6	22.0	19.9	20.3	20.3	20.8	21.2
8H	4H	19.9	20.4	20.4	20.9	21.3	19.5	20.0	20.0	20.5	21.0
	6H	20.5	20.9	21.0	21.4	21.9	19.9	20.3	20.4	20.8	21.3
	8H	20.8	21.1	21.3	21.6	22.1	20.1	20.4	20.6	21.0	21.5
	12H	21.0	21.3	21.5	21.8	22.4	20.2	20.5	20.7	21.0	21.6
12H	4H	19.9	20.3	20.4	20.8	21.3	19.5	20.0	20.0	20.4	20.9
	6H	20.5	20.9	21.1	21.3	21.9	19.9	20.3	20.5	20.8	21.3
	8H	20.8	21.1	21.3	21.6	22.2	20.1	20.4	20.7	20.9	21.5

Corrected UGR values based on total output lumens

SHR = 1.0