

Photometric Report - (4x04B-FT5C40) - Page 1 of 4

Indoor Photometric Report

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Created: Thu, 28 Jan 2016 10:54:10

PRODUCT INFORMATION

Test number: 1
Test date: Thu, 28 Jan 2016 10:54:10
Manufacturer:
Catalog number:
Description: 4x04B-FT5C40
Lamp catalog number: Philips TL5C 40W/830, Philips TL5C 22W/830
Lamp description: Fluor. 40W 11.25" dia. circular T5, Fluor. 22W 8.25" dia. circular

ANALYSIS SUMMARY

Traced 5000000 of 5000000 rays.
Rays limited to 25 reactions.
Rays traced to a minimum of 1% of their initial magnitude.
Far Field Sphere Test Distance: 20ft
Photometric Type: C
Symmetry: None

LUMENS EXITING FAR FIELD SPHERE

	Lumens (%)	Reaction
0 (0.0%)		0
0 (0.0%)		1
1611 (31.6%)		2
987 (19.4%)		3
400 (7.9%)		4
317 (6.2%)		5
150 (2.9%)		6
131 (2.6%)		7
91 (1.8%)		8
76 (1.5%)		9
55 (1.1%)		10
43 (0.8%)		11
33 (0.6%)		12
26 (0.5%)		13
20 (0.4%)		14
16 (0.3%)		15
12 (0.2%)		16
9 (0.2%)		17
7 (0.1%)		18
6 (0.1%)		19
5 (0.1%)		20
4 (0.1%)		21
3 (0.1%)		22
2 (0.0%)		23
2 (0.0%)		24
4005 (78.5%)		Total

LUMEN INTERACTION WITH SYSTEM

Attenuated (%)	Absorbed (%)	Incident (%)	Layer Name
0 (0.0%)	94 (1.8%)	1497 (29.4%)	LAMP-TL5C22W1
0 (0.0%)	7 (0.1%)	104 (2.0%)	LAMP-TL5C22W2
0 (0.0%)	42 (0.8%)	132 (2.6%)	LAMP-TL5C22W3
0 (0.0%)	1 (0.0%)	5 (0.1%)	LAMP-TL5C22W4
0 (0.0%)	105 (2.1%)	1681 (33.0%)	LAMP-TL5C40W1
0 (0.0%)	5 (0.1%)	74 (1.4%)	LAMP-TL5C40W2
0 (0.0%)	4 (0.1%)	70 (1.4%)	LAMP-TL5C40W3
0 (0.0%)	79 (1.6%)	148 (2.9%)	LAMP-TL5C40W4

0 (0.0%)	1 (0.0%)	3 (0.1%)	LAMP-TL5C40W5
0 (0.0%)	624 (12.2%)	4113 (80.7%)	REFL-BACKPLATE
0 (0.0%)	45 (0.9%)	378 (7.4%)	REFL-RIM
0 (0.0%)	166 (3.3%)	11677 (229.0%)	TRAN-SHADE
0 (0.0%)	1173 (23.0%)	19881 (389.8%)	Total

Attenuated (%)	Absorbed (%)	Incident (%)	Material Name
0 (0.0%)	166 (3.3%)	11677 (229.0%)	0D0103MMS
0 (0.0%)	45 (0.9%)	378 (7.4%)	ACA909
0 (0.0%)	215 (4.2%)	3426 (67.2%)	PHOSGLAS
0 (0.0%)	624 (12.2%)	4113 (80.7%)	RAL900310
0 (0.0%)	2 (0.0%)	8 (0.1%)	SUPPORT1
0 (0.0%)	42 (0.8%)	132 (2.6%)	TL5C22W3
0 (0.0%)	79 (1.6%)	148 (2.9%)	TL5C40W4
0 (0.0%)	1173 (23.0%)	19881 (389.8%)	Total

ANOMALOUS LUMENS

Reached interreflection limit:	6.27 (0.1%)
Fell below minimum ray energy:	0.00 (0.0%)
Redirected lamp distribution:	0.00 (0.0%)
Transmitted through shadow geometry:	0.00 (0.0%)
Ray exited a material prior to entering:	0.00 (0.0%)
Ray enter/exit material mismatch:	0.00 (0.0%)
TIR within an incorrect material:	0.00 (0.0%)
Ray never exited a material:	0.00 (0.0%)
Intersected with Overlapping Surfaces:	87.36 (1.7%)

- On layers

LAMP-TL5C22W1

LAMP-TL5C22W2

LAMP-TL5C22W3

LAMP-TL5C22W4

LAMP-TL5C40W1

LAMP-TL5C40W2

LAMP-TL5C40W3

LAMP-TL5C40W4

LAMP-TL5C40W5

REFL-BACKPLATE

REFL-RIM

TRAN-SHADE

___internal___

Exited Outside of Photometric distribution:	0.00 (0.0%)
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LUMINAIRE PROPERTIES

Number of lamps: 2
 Lumens per lamp: 2550.0
 Input watts: 69.0

Distribution: Semi-Direct
 Symmetry: None
 Photometric Type: C
 Luminous shape: Rectangle
 Luminous dimensions (feet)
 0° - 180° Axis: 1.8
 90° - 270° Axis: 1.8
 Height: 0.3

CANDELA DISTRIBUTION

Lumen basis: 5,100
 Ballast factor: 1.00

Internal multiplier: 1.00
 Tilt factor geometry: No tilt factor.

Candela Distribution

	0.00	10.00	20.00	30.00	40.00
0.00	1224.19	1224.19	1224.19	1224.19	1224.19
10.00	1196.67	1160.54	1192.46	1184.21	1204.19
20.00	1125.81	1126.21	1114.27	1093.05	1132.95
30.00	1026.83	1022.78	1006.86	1014.10	1011.57
40.00	865.92	860.62	872.93	863.39	860.88
50.00	675.71	671.56	682.03	684.25	664.90
60.00	482.68	489.58	492.12	489.43	486.54
70.00	306.38	306.82	315.37	308.77	311.85
80.00	174.97	174.14	177.98	177.72	177.27
90.00	112.82	113.11	114.30	114.96	115.85
100.00	116.08	115.31	113.87	117.37	112.68
110.00	114.14	117.26	110.09	117.17	117.12
120.00	106.28	109.18	103.44	108.27	105.83
130.00	94.61	94.80	94.97	95.62	95.46
140.00	85.91	83.54	84.37	82.52	86.24
150.00	71.99	74.90	71.84	74.39	69.89
160.00	70.08	63.03	64.29	67.79	67.18
170.00	59.75	63.26	63.23	64.63	65.20
180.00	58.73	58.73	58.73	58.73	58.73

ZONAL LUMENS

Cone	Between	Lumens
2.50	0.00 - 5.00	29.27
10.00	5.00 - 15.00	226.92
20.00	15.00 - 25.00	420.52
30.00	25.00 - 35.00	553.27
40.00	35.00 - 45.00	602.92
50.00	45.00 - 55.00	564.06
60.00	55.00 - 65.00	456.58
70.00	65.00 - 75.00	313.81
80.00	75.00 - 85.00	183.32
90.00	85.00 - 95.00	118.73
100.00	95.00 - 105.00	116.90
110.00	105.00 - 115.00	113.14
120.00	115.00 - 125.00	96.93
130.00	125.00 - 135.00	76.33
140.00	135.00 - 145.00	56.58
150.00	145.00 - 155.00	38.84
160.00	155.00 - 165.00	24.82
170.00	165.00 - 175.00	11.75
177.50	175.00 - 180.00	1.40

Zonal Lumen Summary

Zone	Lumens	% Lamp	% Fixture
0.00 - 30.00	953.34	18.69	23.80

0.00 - 40.00	1531.44	30.03	38.23
0.00 - 60.00	2625.25	51.48	65.53
0.00 - 90.00	3410.02	66.86	85.12
90.00 - 120.00	337.87	6.62	8.43
90.00 - 150.00	538.67	10.56	13.45
90.00 - 180.00	596.07	11.69	14.88
0.00 - 180.00	4006.10	78.55	100.00

Total Luminaire Optical Efficiency = 78.55%

INDOOR REPORT

Luminaire Spacing Criterion (spacing to mounting height ratio)

Two luminaires, plane 0: 1.24

Two luminaires, plane 90: 1.23

Four luminaires: 1.33

Full Beam Angle:

0° - 180° 90° - 270°

105.57° 106.50°

Average Luminaire Luminance (cd/m²)

	0.00	10.00	20.00	30.00	40.00
0.00	4223.17	4223.17	4223.17	4223.17	4223.17
45.00	3206.69	3114.33	3105.55	3054.49	2993.46
55.00	2794.25	2715.73	2682.73	2639.92	2569.61
65.00	2349.99	2274.42	2234.70	2163.17	2141.15
75.00	1950.52	1834.96	1800.33	1723.98	1708.26
85.00	1914.88	1729.41	1638.39	1566.74	1534.04