

Photometric Report - (W1005) - Page 1 of 6

Indoor Photometric Report for photometric data file:
W:\Drawings\Standards\W1005\Photometrics\W1005.ies
File Creation Date: Tue May 18 08:08:59 2010

Product Information

Test number: 1
Test date: Fri Oct 02 12:00:39 2009
Description: W1005
Lamp catalog number: DULUX D 9W/21-840
Lamp description: Fluor. 9W DULUX quad tube
General description information:

OPTIONS:

Performing lamp shadow check up to 500 tries.
Spawning 1 rays for each reaction.
Random number generator seed: 8.
Tracing 25 reactions.
Stop tracing ray at 1.0% of initial magnitude.
Tracing 2499992 initial lamp rays.
Photometric test distance of 20.00 feet.

LUMENS EXITING SYSTEM:

Lumens(%)	Reaction
185(17.7%)	0
143(13.7%)	1
310(29.6%)	2
149(14.2%)	3
59(5.7%)	4
33(3.2%)	5
15(1.5%)	6
8(0.8%)	7
4(0.5%)	8
2(0.3%)	9
1(0.2%)	10
1(0.1%)	11
0(0.1%)	12
0(0.1%)	13
0(0.0%)	14
0(0.0%)	15
0(0.0%)	16
0(0.0%)	17
0(0.0%)	18
0(0.0%)	19
0(0.0%)	20
0(0.0%)	21
0(0.0%)	22
0(0.0%)	23
0(0.0%)	24
0(0.0%)	25
919(87.6%)	Total

LUMEN INTERACTION WITH SYSTEM:

Absorbed(%)	Incident(%)	Layer Name
2(0.2%)	37(3.6%)	LAMP-F9DIT1
4(0.4%)	69(6.6%)	LAMP-F9DIT2
3(0.3%)	55(5.3%)	LAMP-F9DIT3
4(0.4%)	62(6.0%)	LAMP-F9DIT4
1(0.1%)	20(2.0%)	LAMP-F9DIT5
2(0.2%)	38(3.7%)	LAMP-F9DIT6
9(0.9%)	46(4.5%)	LAMP-F9DIT7
54(5.2%)	544(51.8%)	W1005 SERIES ASSEMBLY - BACK PAN-1

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24(2.3%)	1379(131.4%)	W1005 SERIES ASSEMBLY - P1005 SERIES
106(10.1%)	2254(214.7%)	Total
Absorbed(%)	Incident(%)	Material Name
18(1.7%)	284(27.1%)	PHOSGLAS
9(0.9%)	46(4.5%)	BASECFL1
54(5.2%)	544(51.8%)	PAINT006
24(2.3%)	1379(131.4%)	R&H2447S
106(10.1%)	2254(214.7%)	Total

UNACCOUNTED LUMENS:

reached interreflection limit:	0.20 (0.0%)
fell below continuation minimum:	0.00 (0.0%)
could not find in/out refractor facet:	0.00 (0.0%)
reached try limit for scatter bounce:	23.87 (2.3%)
lost elsewhere(i.e. outside distrib):	0.00 (0.0%)

LUMINAIRE PROPERTIES

Number of lamps: 2	Luminous shape: Rectangle
Lumens per lamp: 525.00	Units: Feet
Input watts: 20.00	Luminous dimensions:
Distribution: Semi-Indirect	0-180 Axis: 16.933
Symmetry: Bilateral 0-180	90-270 Axis: 33.867
Photometric type: C	Height: 16.933

ZONAL LUMENS

Cone	Between	Lumens
1.25	0.00 - 2.50	0.61
5.00	2.50 - 7.50	4.77
10.00	7.50 - 12.50	9.27
15.00	12.50 - 17.50	13.47
20.00	17.50 - 22.50	17.37
25.00	22.50 - 27.50	20.66
30.00	27.50 - 32.50	23.18
35.00	32.50 - 37.50	25.03
40.00	37.50 - 42.50	26.24
45.00	42.50 - 47.50	26.93
50.00	47.50 - 52.50	26.85
55.00	52.50 - 57.50	26.32
60.00	57.50 - 62.50	25.50
65.00	62.50 - 67.50	24.55
70.00	67.50 - 72.50	23.22
75.00	72.50 - 77.50	22.14
80.00	77.50 - 82.50	20.75
85.00	82.50 - 87.50	19.71
90.00	87.50 - 92.50	18.96
95.00	92.50 - 97.50	18.06
100.00	97.50 - 102.50	17.69
105.00	102.50 - 107.50	16.97
110.00	107.50 - 112.50	15.85
115.00	112.50 - 117.50	13.60
120.00	117.50 - 122.50	22.58
125.00	122.50 - 127.50	45.37
130.00	127.50 - 132.50	51.31
135.00	132.50 - 137.50	51.36
140.00	137.50 - 142.50	50.12
145.00	142.50 - 147.50	47.47
150.00	147.50 - 152.50	45.19
155.00	152.50 - 157.50	42.42
160.00	157.50 - 162.50	39.15
165.00	162.50 - 167.50	31.38
170.00	167.50 - 172.50	22.37
175.00	172.50 - 177.50	11.81
178.75	177.50 - 180.00	1.56

Zonal Lumen Summary

Zone	Lumens	%Lamp	%Fixt
0- 30	78	7.4	8.5
0- 40	127	12.1	13.9
0- 60	233	22.2	25.4
0- 90	366	34.9	39.8
90-120	103	9.8	11.2
90-150	382	36.4	41.6
90-180	554	52.7	60.2
0-180	920	87.6	100.0

Total Luminaire Optical Efficiency = 87.6%

INDOOR REPORT

Luminaire Spacing Criterion (spacing to mounting height ratio)

Two luminaires, plane 0: 0.72
 Two luminaires, plane 90: 1.32
 Four luminaires: 1.38

Full Beam Angle:

0-180 deg 90-270 deg
 284.60 247.65

Average Luminaire Luminance (cd/meter²)

	0	45	90	135	180
0	2	2	2	2	2
45	0	0	1	1	2
55	0	0	1	1	1
65	0	0	1	1	1
75	0	0	1	1	1
85	0	0	1	1	1

Coefficients of Utilization - Zonal Cavity Method

pfc = 0.20

pcc->		.8			.7			.5			.3			.1			0	
pw->	.7	.5	.3	.1	.7	.5	.3	.1	.5	.3	.1	.5	.3	.1	.5	.3	.1	0
RCR																		
0	92	92	92	92	84	84	84	84	68	68	68	54	54	54	41	41	41	35
1	82	78	74	70	75	71	67	64	57	55	53	45	43	42	31	31	31	26
2	74	67	61	56	67	61	56	52	49	46	42	39	36	34	25	25	25	21
3	68	59	52	46	61	53	47	42	43	39	35	34	31	28	20	20	20	17
4	62	52	44	39	55	47	40	36	38	33	29	30	26	24	17	17	17	14
5	56	46	38	33	51	42	35	30	34	29	25	27	23	20	14	14	14	12
6	52	41	33	28	47	37	31	26	30	25	22	24	20	17	12	12	12	10
7	48	37	29	24	43	33	27	23	27	22	19	22	18	15	11	11	11	9
8	44	33	26	21	40	30	24	20	25	20	17	20	16	13	10	10	10	8
9	41	30	23	19	37	28	22	18	23	18	15	18	15	12	9	9	9	7
10	38	28	21	17	35	25	19	16	21	16	13	17	13	11	8	8	8	