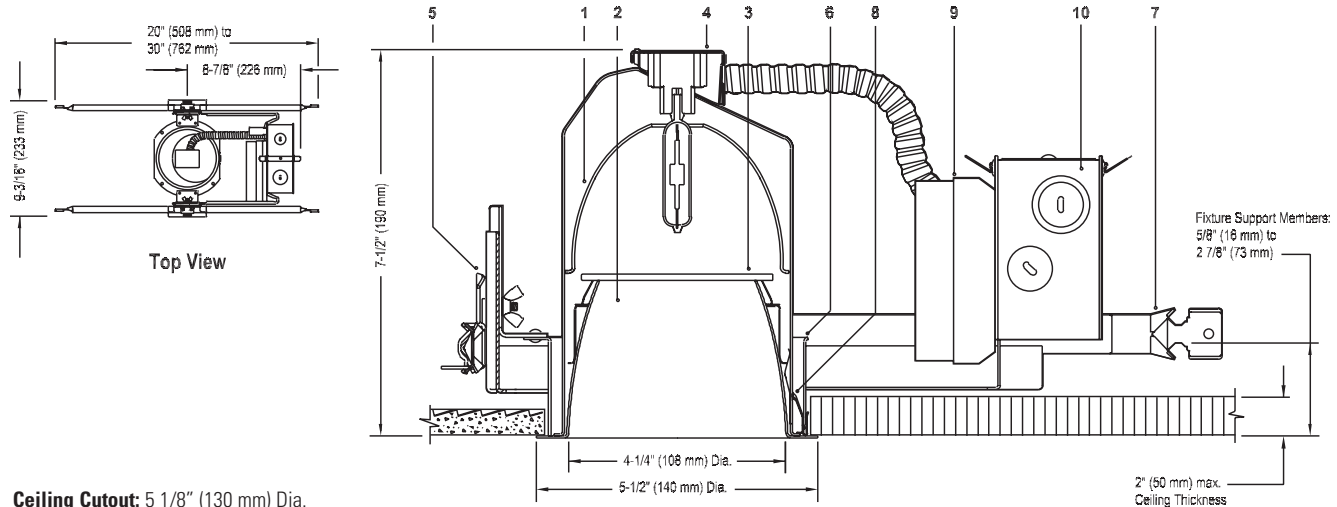




Ceiling Cutout: 5 1/8" (130 mm) Dia.

Reflector Trim			Frame-In Kit		Lamp (Ceramic Metal Halide)
C4T4VW	CLW	Specular Clear, White Painted Flange	C420BT5PGJ5E1	Electronic 120V	22W Philips MiniMasterColor
	CLP	Specular Clear, Matching Flange	C420T4GU65EU	Electronic 120V/277V	20W GE ConstantColor
	CCDW	Comfort Clear Diffuse, White Painted Flange	C420T4EU	Electronic 120V/277V	20W T4.5
	CCDP	Comfort Clear Diffuse, Matching Flange	C439T4GU65EU	Electronic 120V/277V	39W GE ConstantColor
	CCZW	Champagne Bronze, White Painted Flange	C439T4E1	Electronic 120V	39W T4.5
	CCZP	Champagne Bronze, Matching Flange	C439T4E2	Electronic 277V	39W T4.5
			C470T4E1	Electronic 120V	70W T4.5
			C470T4E2	Electronic 277V	70W T4.5

Features

- Upper Reflector:** Clear anodized aluminum, 0.040" (16-ga.). Provides medium beam optics ideal for general lighting. Also available in medium and wide beam, see C4T4VN and C4T4VM specification sheets.
- Aperture Cone:** Provides 50° visual cut-off to lamp and lamp image; self-flange in painted white or aperture-matching polished flange. Consult factory for other finishes.
- Lamp Shield:** High-temperature glass as required by code, captive during re-lamping. Light diffusion provides exceptionally smooth beam.
- Socket Housing:** Galvanized steel, pre-wired with G8.5 pulse rated socket. Snaps onto upper reflector for secure attachment without tools; unitized construction assures proper lamp alignment to optics for consistent performance.
- Mounting Frame:** 0.048" (18-ga.) galvanized steel. Vertical adjustment mechanism accommodates mounting to virtually any ceiling system using mounting bars (provided, or 1/2" EMT tubing (by others). Single locking feature secures all adjustments. Alignment holes and markings allow fixture to be preset prior to installation.
- Mounting Ring:** 0.048" (18-ga.) galvanized steel. Designed for vertical adjustment from above or below for ceilings from 0" to 2" thick. Center-line notches allow consistent alignment of multiple fixtures.
- Mounting Bars:** 0.048" (18-ga.) pre-installed, telescoping bars extend to 30" long and lock securely into position. Built-in locking tabs provide positive attachment to common T-bar systems. Self-centering feature simplifies installation in 24" O.C. grid systems. Attaches to steel or wood joists without accessories.
- Trim Retention Springs:** Rust resistant springs secure reflector/housing for quick, tool-less installation.
- Ballast / Socket Housing / Cover Assembly:** Snaps onto junction box without tools for inspection and ballast replacement, accessible from below.
- Junction Box:** 0.048" (18-ga.) galvanized steel. UL listed for 8 No. 12 AWG, 90°C through branch circuit conductors. Allows inspection from below.
- Thermal Protector:** (Not Shown) Meets NEC and UL requirements. Do not install insulation above nor within 3" (76mm) of any part of the luminaire.

Electrical

Electronic Ballast: 120 or 277V, 50/60 Hz., enclosed, high power factor, T.H.D. <15%, thermally and transient protected, RMI/RFI complies with FCC Part 18 non-consumer limits, shut-down circuit at end of lamp life, sound rating "A", -5°F minimum starting temperature, Type 1 Outdoor rating.

Ballast	ANSI Code	Voltage	Max. Amps	Input Watts
20W MH	M156	120/277	0.21/0.10	23
39W MH	M130	120/277	0.39/0.17	44
70W MH	M139	120/277	0.67/0.29	78

Options and Accessories

Slope Ceiling Adapters: See Specification Sheet SCA.

Chicago Plenum: Consult Factory.

Labels

UL (Suitable for Damp Locations), CSA, I.B.E.W.

For 70W, install fixtures with minimum spacing between:

- Center-to center of adjacent luminaires: 2 feet.
- Top of luminaire to overhead building member: 1/2 inch.
- Luminaire center to side building member: 1 foot.

Job Information

Type:

Job Name:

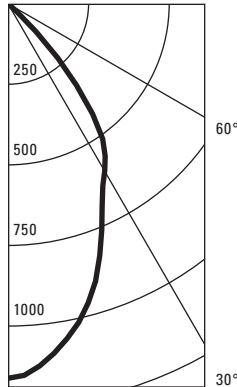
Cat. No.:

Lamp(s):

Notes:

20W T4 GE CMH Lamp, Lumen Rating = 1700 LMS, Aromat 20W Electronic Ballast, CL Finish Trim

CANDLEPOWER DISTRIBUTION



ANGLE	MEAN CP	LUMENS
0	1162	
5	1128	107
10	1055	270
15	961	
20	832	326
25	691	
30	600	307
35	512	
40	331	115
45	124	
50	11	4
55	2	
60	1	0
65	0	
70	0	0
75	0	
80	0	0
85	0	
90	0	0

LUMINANCE SUMMARY CD. / SQ. M.	
ANGLE	MEAN CD/SQ M
45	17204
55	370
65	13
75	0
85	0

ZONAL LUMENS AND PERCENTAGES			
ZONE	LUMENS	% LAMP	% LUMINAIRE
0-30	702	41.33	62.26
0-40	1009	59.4	89.5
0-60	1128	66.36	99.98
0-90	1128	66.37	100
40-90	118	6.97	10.5
60-90	0	0.02	0.02
90-180	0	0	0
0-180	1128	66.37	100

EFFICIENCY = 66.4%
SC = .9

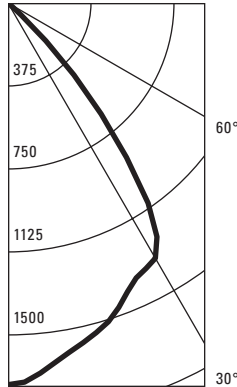
CERTIFIED TEST REPORT NO. 2318FR, DATE: SEP 28, 2003
COMPUTED BY LSI PROGRAM **TEST-LITE**

Coefficients of Utilization												
Ceiling	80%				70%		50%		30%			
Wall	70	50	30	10	50	10	50	10	50	10	50	10
RCR	Zonal Cavity Method - Effective Floor Cavity Reflectance = 20%											
0	.79	.79	.79	.79	.77	.77	.74	.74	.71	.71	.67	
1	.76	.74	.73	.72	.73	.70	.70	.68	.68	.66	.63	
2	.73	.70	.68	.66	.69	.65	.67	.63	.65	.62	.60	
3	.69	.66	.63	.60	.65	.60	.63	.59	.62	.58	.56	
4	.66	.62	.59	.56	.61	.56	.60	.55	.59	.55	.53	
5	.63	.58	.55	.52	.58	.52	.56	.52	.55	.51	.50	
6	.60	.55	.51	.49	.55	.49	.54	.48	.53	.48	.47	
7	.57	.52	.48	.46	.51	.45	.50	.45	.50	.45	.44	
8	.55	.48	.45	.42	.48	.42	.47	.42	.47	.42	.41	
9	.52	.46	.42	.39	.45	.39	.44	.39	.44	.39	.38	
10	.49	.43	.39	.36	.42	.36	.42	.36	.41	.36	.35	
LUMINAIRE INPUT WATTS = 23												

LUMINAIRE INPUT WATTS = 23

39W T4 Philips CMH Lamp, Lumen Rating = 3300 LMS, Aromat 39W Electronic Ballast, CL Finish Trim

CANDLEPOWER DISTRIBUTION



ANGLE	MEAN CP	LUMENS
0	1725	
5	1679	160
10	1602	
15	1542	436
20	1464	
25	1371	641
30	1332	
35	1104	659
40	855	
45	242	225
50	24	
55	5	8
60	2	
65	0	1
70	0	
75	0	0
80	0	
85	0	0
90	0	

LUMINANCE SUMMARY CD. / SQ. M.	
ANGLE	MEAN CD/SQ M
45	33540
55	928
65	78
75	0
85	0

ZONAL LUMENS AND PERCENTAGES			
ZONE	LUMENS	% LAMP	% LUMINAIRE
0-30	1236	37.46	58.06
0-40	1895	57.42	88.99
0-60	2128	64.51	99.97
0-90	2129	64.53	100
40-90	234	7.1	11.01
60-90	0	0.02	0.03
90-180	0	0	0
0-180	2129	64.53	100

EFFICIENCY = 64.5%
SC = 1.1

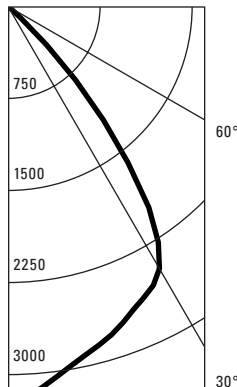
CERTIFIED TEST REPORT NO. 2317FR, DATE: SEP 27, 2003
COMPUTED BY LSI PROGRAM **TEST-LITE**

Coefficients of Utilization												
Ceiling	80%				70%		50%		30%			
Wall	70	50	30	10	50	10	50	10	50	10	50	10
RCR	Zonal Cavity Method - Effective Floor Cavity Reflectance = 20%											
0	.77	.77	.77	.77	.75	.75	.72	.72	.69	.69	.65	
1	.74	.72	.71	.69	.71	.68	.68	.66	.66	.64	.61	
2	.70	.68	.65	.63	.66	.62	.64	.61	.63	.60	.58	
3	.67	.63	.60	.58	.62	.58	.61	.57	.59	.56	.54	
4	.64	.59	.56	.54	.59	.53	.57	.53	.56	.52	.51	
5	.61	.56	.52	.49	.55	.49	.54	.49	.53	.48	.47	
6	.58	.52	.49	.46	.52	.46	.51	.46	.50	.45	.44	
7	.55	.49	.45	.43	.48	.42	.48	.42	.47	.42	.41	
8	.52	.46	.42	.39	.45	.39	.44	.39	.44	.39	.38	
9	.49	.42	.39	.36	.42	.36	.41	.36	.41	.36	.35	
10	.46	.40	.36	.33	.39	.33	.39	.33	.38	.33	.32	
LUMINAIRE INPUT WATTS = 44												

LUMINAIRE INPUT WATTS = 44

70W T4 Philips CMH Lamp, Lumen Rating = 6400 LMS, Aromat 70W Electronic Ballast, CL Finish Trim

CANDLEPOWER DISTRIBUTION



ANGLE	MEAN CP	LUMENS
0	3202	
5	3121	296
10	2971	
15	2858	810
20	2741	
25	2618	1208
30	2467	
35	2000	1206
40	1210	
45	445	414
50	39	
55	5	11
60	0	
65	0	0
70	0	
75	0	0
80	0	
85	0	0
90	0	

LUMINANCE SUMMARY CD. / SQ. M.	
ANGLE	MEAN CD/SQ M
45	61531
55	806
65	0
75	0
85	0

ZONAL LUMENS AND PERCENTAGES			
ZONE	LUMENS	% LAMP	% LUMINAIRE
0-30	2314	36.16	58.67
0-40	3520	55	89.23
0-60	3944	61.64	100
0-90	3944	61.64	100
40-90	424	6.64	10.77
60-90	0	0	0
90-180	0	0	0
0-180	3944	61.64	100

EFFICIENCY = 61.6%
SC = 1.1

CERTIFIED TEST REPORT NO. 2316FR, DATE: SEP 27, 2003
COMPUTED BY LSI PROGRAM **TEST-LITE**

Coefficients of Utilization												
Ceiling	80%				70%		50%		30%		10%	
Wall	70	50	30	10	50	10	50	10	50	10	50	10
RCR	Zonal Cavity Method - Effective Floor Cavity Reflectance = 20%											
0	.74	.74	.74	.74	.72	.72	.69	.69	.66	.66	.62	
1	.71	.69	.68	.66	.68	.65	.65	.63	.63	.61	.58	
2	.67	.65	.63	.60	.64	.60	.62	.59	.60	.57	.55	
3	.64	.61	.58	.56	.60	.55	.58	.54	.57	.53	.52	
4	.61	.57	.54	.51	.56	.51	.55	.51	.54	.50	.49	
5	.58	.53	.50	.47	.53	.47	.52	.47	.51	.46	.45	
6	.55	.50	.47	.44	.50	.44	.49	.44	.48	.43	.42	
7	.52	.47	.43	.41	.47	.41	.46	.41	.45	.40	.39	
8	.50	.44	.40	.38	.43	.38	.43	.37	.42	.37	.36	
9	.47	.41	.37	.35	.40	.35	.40	.34	.39	.34	.33	
10	.44	.38	.34	.32	.38	.32	.37	.32	.37	.32	.31	
LUMINAIRE INPUT WATTS = 78												

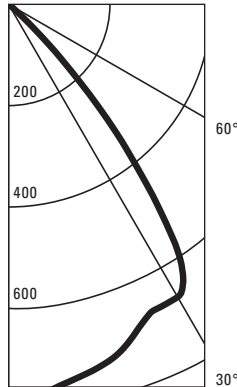
LUMINAIRE INPUT WATTS = 78

Job Information

Type:

22W PGJ5 Philips MiniMastercolor CMH Lamp, Lumen Rating = 1650 LMS, Aromat Electronic Ballast, CL Finish Trim

CANDLEPOWER DISTRIBUTION



ANGLE	MEAN CP	LUMENS
0	789	
5	771	74
10	750	
15	733	207
20	703	
25	668	313
30	666	
35	566	334
40	329	
45	112	109
50	11	
55	2	4
60	1	
65	0	0
70	0	
75	0	0
80	0	
85	0	0
90	0	

LUMINANCE SUMMARY CD. / SQ. M.

ANGLE	MEAN CD/SQ M
45	15439
55	330
65	70
75	9
85	0

ZONAL LUMENS AND PERCENTAGES

ZONE	LUMENS	% LAMP	% LUMINAIRE
0-30	593	36.52	57.03
0-40	927	57.08	89.13
0-60	1040	64.01	99.96
0-90	1040	64.04	100
40-90	113	6.96	10.87
60-90	0	0.03	0.04
90-180	0	0	0
0-180	1040	64.04	100

EFFICIENCY = 64.0%
SC = 1.1

CERTIFIED TEST REPORT NO. 3840FR
COMPUTED BY LSI PROGRAM **TEST-LITE**

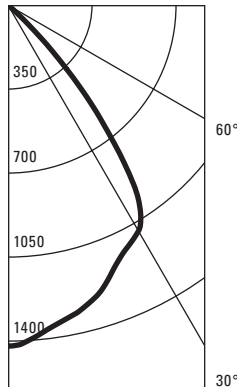
Coefficients of Utilization

Ceiling	80%				70%				50%				30%			
Wall	70	50	30	10	50	10	50	10	50	10	50	10	50	10	50	10
RCR	Zonal Cavity Method - Effective Floor Cavity Reflectance = 20%															
0	.76	.76	.76	.76	.74	.74	.71	.71	.68	.68	.64					
1	.73	.71	.70	.69	.70	.67	.67	.65	.65	.63	.61					
2	.70	.67	.65	.63	.66	.62	.64	.61	.62	.59	.57					
3	.66	.63	.60	.57	.62	.57	.60	.56	.59	.55	.53					
4	.63	.59	.56	.53	.58	.53	.57	.52	.56	.52	.50					
5	.60	.55	.51	.49	.54	.49	.53	.48	.52	.48	.46					
6	.57	.52	.48	.45	.51	.45	.50	.45	.49	.45	.43					
7	.54	.48	.44	.42	.48	.42	.47	.42	.46	.41	.40					
8	.51	.45	.41	.39	.44	.38	.44	.38	.43	.38	.37					
9	.48	.42	.38	.35	.41	.35	.41	.35	.40	.35	.34					
10	.45	.39	.35	.32	.38	.32	.38	.32	.37	.32	.31					

LUMINAIRE INPUT WATTS = 25

39W PGJ5 Philips MiniMastercolor CMH Lamp, Lumen Rating = 3000 LMS, Aromat Electronic Ballast, CL Finish Trim

CANDLEPOWER DISTRIBUTION



ANGLE	MEAN CP	LUMENS
0	1421	
5	1384	132
10	1334	
15	1289	364
20	1218	
25	1138	530
30	1087	
35	913	543
40	548	
45	197	186
50	18	
55	3	5
60	1	
65	0	0
70	0	
75	0	0
80	0	
85	0	0
90	0	

LUMINANCE SUMMARY CD. / SQ. M.

ANGLE	MEAN CD/SQ M
45	27273
55	491
65	0
75	0
85	0

ZONAL LUMENS AND PERCENTAGES

ZONE	LUMENS	% LAMP	% LUMINAIRE
0-30	1025	34.18	58.25
0-40	1568	52.29	89.13
0-60	1760	58.67	99.99
0-90	1760	58.67	100
40-90	191	6.38	10.87
60-90	0	0	0.01
90-180	0	0	0
0-180	1760	58.67	100

EFFICIENCY = 58.7%
SC = 1.1

CERTIFIED TEST REPORT NO. 3911FR
COMPUTED BY LSI PROGRAM **TEST-LITE**

Coefficients of Utilization

Ceiling	80%				70%				50%				30%			
Wall	70	50	30	10	50	10	50	10	50	10	50	10	50	10	50	10
RCR	Zonal Cavity Method - Effective Floor Cavity Reflectance = 20%															
0	.70	.70	.70	.70	.68	.68	.65	.65	.62	.62	.59					
1	.67	.65	.64	.63	.64	.62	.62	.60	.60	.58	.55					
2	.64	.61	.59	.57	.60	.57	.58	.55	.57	.54	.52					
3	.61	.57	.55	.53	.57	.52	.55	.51	.54	.51	.49					
4	.58	.54	.51	.49	.53	.48	.52	.48	.51	.47	.46					
5	.55	.51	.47	.45	.50	.45	.49	.44	.48	.44	.43					
6	.53	.48	.44	.42	.47	.42	.46	.41	.45	.41	.40					
7	.50	.44	.41	.39	.44	.38	.43	.38	.43	.38	.37					
8	.47	.41	.38	.36	.41	.36	.40	.35	.40	.35	.34					
9	.44	.39	.35	.33	.38	.33	.38	.33	.37	.32	.32					
10	.42	.36	.33	.30	.36	.30	.35	.30	.35	.30	.29					

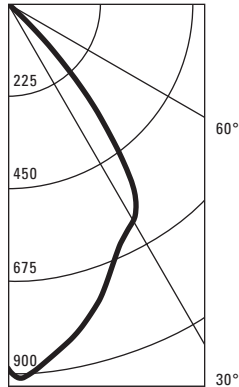
LUMINAIRE INPUT WATTS = 45

Job Information

Type:

20W GU6.5 GE ConstantColor CMH Lamp, Lumen Rating = 1615 LMS, Aromat Electronic Ballast, CL Finish Trim

CANDLEPOWER DISTRIBUTION



ANGLE	MEAN CP	LUMENS
0	885	
5	885	83
10	835	
15	779	220
20	711	
25	644	302
30	608	
35	519	309
40	323	
45	121	111
50	11	
55	1	3
60	0	
65	0	0
70	0	
75	0	0
80	0	
85	0	0
90	0	

LUMINANCE SUMMARY CD. / SQ. M.	
ANGLE	MEAN CD/SQ M
45	16683
55	236
65	0
75	0
85	0

ZONAL LUMENS AND PERCENTAGES			
ZONE	LUMENS	% LAMP	% LUMINAIRE
0-30	604	37.46	58.8
0-40	914	56.6	88.85
0-60	1028	63.7	100
0-90	1028	63.71	100
40-90	114	7.1	11.15
60-90	0	0	0
90-180	0	0	0
0-180	1028	63.71	100

EFFICIENCY = 63.7%
SC = 1.0

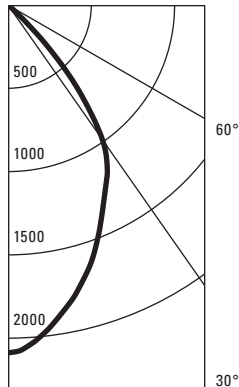
CERTIFIED TEST REPORT NO. 3833FR
COMPUTED BY LSI PROGRAM **TEST-LITE**

Coefficients of Utilization												
Ceiling	80%				70%		50%		30%			
Wall	70	50	30	10	50	10	50	10	50	10	50	10
RCR	Zonal Cavity Method - Effective Floor Cavity Reflectance = 20%											
0	.76	.76	.76	.76	.74	.74	.71	.71	.68	.68	.64	
1	.73	.71	.70	.68	.70	.67	.67	.65	.65	.63	.60	
2	.69	.67	.64	.62	.66	.62	.63	.60	.62	.59	.57	
3	.66	.62	.60	.57	.62	.57	.60	.56	.59	.55	.53	
4	.63	.59	.56	.53	.58	.53	.57	.52	.56	.52	.50	
5	.60	.55	.52	.49	.55	.49	.53	.48	.52	.48	.47	
6	.57	.52	.48	.46	.51	.46	.50	.45	.50	.45	.44	
7	.54	.48	.45	.42	.48	.42	.47	.42	.46	.42	.41	
8	.51	.45	.42	.39	.45	.39	.44	.39	.44	.39	.38	
9	.48	.42	.39	.36	.42	.36	.41	.36	.41	.36	.35	
10	.46	.39	.36	.33	.39	.33	.39	.33	.38	.33	.32	
LUMINAIRE INPUT WATTS = 25												

LUMINAIRE INPUT WATTS = 25

39W GU6.5 GE Constantcolor CMH Lamp, Lumen Rating = 3400 LMS, Aromat Electronic Ballast, CL Finish Trim

CANDLEPOWER DISTRIBUTION



ANGLE	MEAN CP	LUMENS
0	2084	
5	2013	190
10	1873	
15	1718	485
20	1539	
25	1344	626
30	1186	
35	986	596
40	636	
45	244	222
50	23	
55	4	7
60	1	
65	0	0
70	0	
75	0	0
80	0	
85	0	0
90	0	

LUMINANCE SUMMARY CD. / SQ. M.	
ANGLE	MEAN CD/SQ M
45	33702
55	707
65	0
75	0
85	0

ZONAL LUMENS AND PERCENTAGES			
ZONE	LUMENS	% LAMP	% LUMINAIRE
0-30	1302	38.3	61.2
0-40	1897	55.82	89.21
0-60	2127	62.57	99.99
0-90	2127	62.57	100
40-90	229	6.75	10.79
60-90	0	0.01	0.01
90-180	0	0	0
0-180	2127	62.57	100

EFFICIENCY = 62.6%
SC = 0.9

CERTIFIED TEST REPORT NO. 3914FR
COMPUTED BY LSI PROGRAM **TEST-LITE**

Coefficients of Utilization												
Ceiling	80%				70%		50%		30%			
Wall	70	50	30	10	50	10	50	10	50	10	50	10
RCR	Zonal Cavity Method - Effective Floor Cavity Reflectance = 20%											
0	.74	.74	.74	.74	.73	.73	.70	.70	.67	.67	.63	
1	.71	.70	.68	.67	.69	.66	.66	.64	.64	.62	.59	
2	.68	.66	.63	.61	.65	.61	.62	.59	.61	.58	.56	
3	.65	.62	.59	.57	.61	.56	.59	.55	.58	.54	.53	
4	.62	.58	.55	.53	.57	.52	.56	.52	.55	.51	.50	
5	.59	.55	.51	.49	.54	.49	.53	.48	.52	.48	.46	
6	.57	.52	.48	.46	.51	.45	.50	.45	.49	.45	.44	
7	.54	.48	.45	.42	.48	.42	.47	.42	.46	.42	.41	
8	.51	.45	.42	.39	.45	.39	.44	.39	.44	.39	.38	
9	.48	.42	.39	.36	.42	.36	.41	.36	.41	.36	.35	
10	.46	.40	.36	.34	.39	.34	.39	.34	.38	.33	.32	
LUMINAIRE INPUT WATTS = 45												

LUMINAIRE INPUT WATTS = 45

Job Information

Type: