

# Square Recessed (TR14)

## Square Recessed Specification

Square Recessed luminaires are designed for acoustical or wet plaster applications. Available in 50 to 150 watt mogul base high pressure sodium lamp and 70 to 175 watt mogul base metal halide lamp. Available with 120/277 volt, 60Hz ballast. Luminaire shall be completely pre-wired for ease of installation.

## Basic Product Description

A 20 gauge steel housing/mounting frame. One piece door frame and trim are finished in white baked enamel. Door frame with torsion spring latches provide easy access for relamping and cleaning. The entire housing is easily removable from the mounting frame for quick access to the ballast. Choice of lenses and diffusers are available -Corning #73 (CO), drop lexalite (LX), drop opal (DO), or Triumph II (KSH-2). Standard mogul base porcelain lamp grip socket eliminates lamp loosening.

## Ballast Characteristics

The Square Recessed fixture contains a U.L. listed high power factor, constant wattage auto-transformer, 120/277V dual-volt F-can type ballast for extra quiet operation, with auto-reset thermal protection. Ballast will start and operate lamps down to -20°F (-30°C) for metal halide and -40°F (-40°C) for high pressure sodium. Mercury vapor lamps may be used in metal halide fixtures.

## Reflector Assembly

A spun aluminum anodized reflector provides a uniform symmetrical wide spread distribution.

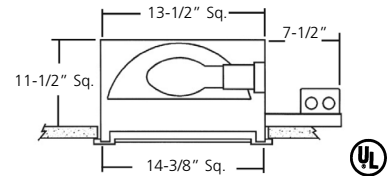
## Suggested Applications

Supermarkets, offices, lobbies, schools, banks or canopied walkways.



Lamp not included

WEIGHT = 27-33 lbs

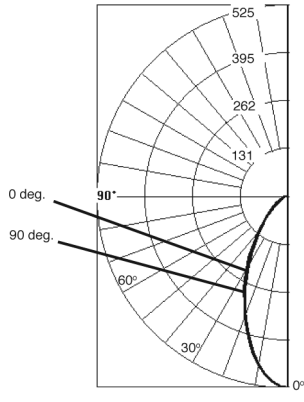


Ordering Example							
Unit	Wattage	Photometrics	Mounting	Lamp Style	Voltage	Ballast Style	Options
TR14	1	5	8	H	120	H	CO
Square Recessed	50 0 - 70 1 - 100 2 - 150 3 - 175	5 - Wide Beam	8- Recessed	H - Metal Halide (coated) LS - High Pressure Sodium	120/277	H - High Power Factor	CO - Corning #73 LX - Drop Lexalite KSH2 - Triumph II
				<b>Accessories</b>			
				<b>SIF</b>			
				SIF - Single Inline Fuse			
				EM - Emergency Quartz Relay and Socket			
				EM60 - Emergency Quartz Delay Relay and Socket			
				QS - Quartz Socket Only (aux. power required)			
				DP - Damp Location			
				TP - Tamper Resistant Screws			
				POS - Position Oriented Socket (Super MH only)			
				IBS - Internal Bugshield			
CSA Certification - consult factory.							



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## Photometrics



ZONAL LUMEN SUMMARY			
ZONE	LUMENS	%LAMP	%FIXT
0-30	295.0	29.5	52.1
0-40	405.0	40.5	71.6
0-60	521.0	52.1	91.9
0-90	566.0	56.6	100.0
0-180	0.0	0.0	0.0
0-180	566.0	56.6	100.0

COEFFICIENTS OF UTILIZATION - ZONAL CAVITY METHOD

	80				70				50				30				10				0
	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10	50	30	10	
0	52	52	52	52	50	50	50	50	48	48	48	46	46	46	44	44	44	44	44	44	43
1	49	47	46	45	48	46	45	44	44	43	43	43	42	41	41	41	40	41	41	40	39
2	45	43	41	39	44	42	40	38	41	39	37	39	38	37	38	37	36	38	37	36	35
3	42	39	36	34	41	38	36	34	37	35	33	36	34	32	35	33	32	35	33	32	31
4	39	35	32	30	39	35	32	30	34	31	29	33	31	29	32	30	29	32	30	29	28
5	37	32	29	27	36	32	29	26	31	28	26	30	28	26	29	27	26	29	27	26	25
6	34	29	26	24	34	29	26	24	28	26	24	28	25	23	27	25	23	27	25	23	23
7	32	27	24	22	31	27	24	22	26	23	21	26	23	21	25	23	21	25	23	21	20
8	30	25	22	20	29	25	22	20	24	21	19	24	21	19	23	21	19	23	21	19	19
9	28	23	20	18	28	23	20	18	22	20	18	22	20	18	22	19	18	22	19	18	17
10	27	22	19	17	26	21	18	16	21	18	16	21	18	16	20	18	16	20	18	16	16

Catalog Number: TR14-158LS-CO  
Lamp: Diffuse High Pressure Sodium

Reflector: Formed diffues symmetric reflector,  
flat prismatic glass enclosure

Efficiency: 56.6%

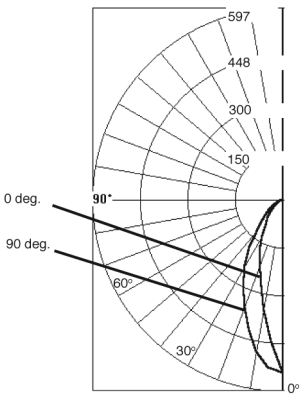
CIE Type: Direct

Luminaire Spacing Criteria: 0.8 - 0 Deg.  
0.8 - 90 Deg.

Candela & Lumen values are based on 1,000 lamp lumens. For other lamp lumen ratings, multiply candela and lumen values by the number: Lumens divided by 1,000.

Per 1,000 Lamp Lumens

DEG	CANDELA	LUMENS
0	525.0	525.0
5	508.0	48.0
15	401.0	116.0
25	275.0	132.0
35	156.0	110.0
45	85.0	73.0
55	39.0	43.0
65	23.0	25.0
75	13.0	15.0
85	5.0	6.0
90	0.0	0.0



ZONAL LUMEN SUMMARY			
ZONE	LUMENS	%LAMP	%FIXT
0-30	302.0	30.2	51.6
0-40	420.0	42.0	71.6
0-60	541.0	54.1	92.4
0-90	586.0	58.6	100.0
0-180	0.0	0.0	0.0
0-180	586.0	58.6	100.0

COEFFICIENTS OF UTILIZATION - ZONAL CAVITY METHOD

	80				70				50				30				10				0
	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10	50	30	10	
0	70	70	70	70	68	68	68	68	65	65	65	62	62	62	60	60	60	60	60	60	59
1	66	64	62	61	64	63	61	60	60	59	58	58	57	56	56	55	54	56	55	54	53
2	62	59	56	54	61	58	55	53	56	54	52	54	52	51	53	51	50	53	51	50	49
3	59	54	51	49	57	54	51	48	52	49	47	51	48	47	49	47	46	49	47	46	45
4	55	51	47	44	54	50	47	44	49	46	43	47	45	43	46	44	42	46	44	42	41
5	52	47	43	40	51	46	43	40	45	42	40	44	41	39	43	41	39	43	41	39	38
6	49	44	40	37	48	43	40	37	42	39	37	41	38	36	41	38	36	41	38	36	35
7	46	40	37	34	46	40	36	34	39	36	34	39	36	33	38	35	33	38	35	33	32
8	44	38	34	31	43	37	34	31	37	33	31	36	33	31	36	33	31	36	33	31	30
9	41	35	31	29	41	35	31	29	34	31	29	34	31	29	33	30	28	33	30	28	28
10	39	33	29	27	39	33	29	27	32	29	27	32	29	27	31	28	26	31	28	26	26

Catalog Number: TR14-358H-CO  
Lamp: Clear Metal Halide

Reflector: Diffused dome reflector,  
prismatic flat glass enclosure

Lumens: Per 1,000 lamp lumens

Efficiency: 58.6%

CIE Type: Direct

Luminaire Spacing Criteria: 0.5 - 0 Deg.  
0.8 - 90 Deg.

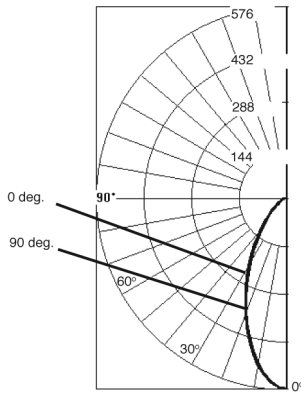
Candela & Lumen values are based on 1,000 lamp lumens. For other lamp lumen ratings, multiply candela and lumen values by the number: Lumens divided by 1,000.

Per 1,000 Lamp Lumens

DEG	CANDELA	LUMENS
0	540.0	540.0
5	443.0	49.0
15	267.0	117.0
25	170.0	136.0
35	99.0	117.0
45	61.0	77.0
55	32.0	45.0
65	16.0	24.0
75	12.0	15.0
85	5.0	6.0
90	0.0	0.0



# Square Recessed (TR14)



ZONAL LUMEN SUMMARY			
ZONE	LUMENS	%LAMP	%FIXT
0-30	316.0	31.6	53.6
0-40	428.0	42.8	72.6
0-60	543.0	54.3	92.2
0-90	589.0	58.9	100.0
90-180	0.0	0.0	0.0
0-180	589.0	58.9	100.0

COEFFICIENTS OF UTILIZATION - ZONAL CAVITY METHOD

	80				70				50				30				10				0
	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10	50	30	10	0
0	70	70	70	70	69	69	69	69	65	65	65	63	63	63	60	60	60	60	60	60	59
1	66	64	62	60	64	62	61	59	60	59	57	58	57	56	56	55	54	56	55	54	53
2	62	58	55	52	60	57	54	52	55	53	51	53	51	50	51	50	48	51	50	48	47
3	58	53	49	46	56	52	49	46	50	48	45	49	46	44	48	45	44	48	45	44	43
4	54	49	45	42	53	48	44	41	47	43	41	45	42	40	44	42	40	44	42	40	39
5	51	45	41	38	50	44	40	37	43	40	37	42	39	37	41	38	36	41	38	36	35
6	48	42	37	34	47	41	37	34	40	37	34	39	36	34	38	36	33	38	36	33	32
7	45	39	34	32	44	38	34	31	37	34	31	37	33	31	36	33	31	36	33	31	30
8	43	36	32	29	42	36	32	29	35	31	29	34	31	29	34	31	29	34	31	29	28
9	40	34	30	27	40	33	30	27	33	29	27	32	29	27	32	29	27	32	29	27	26
10	38	32	28	25	38	31	28	25	31	28	25	30	27	25	30	27	25	30	27	25	24

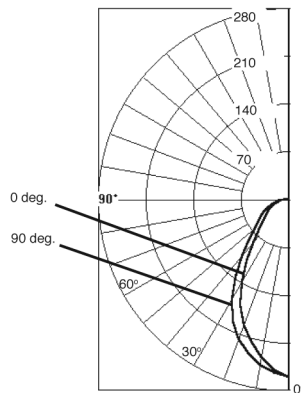
Catalog Number: TR14-158H-CO  
Lamp: Phosphor Coated Metal Halide

Reflector: Formed diffuses symmetric reflector,  
flat prismatic glass enclosure  
Lumens: Per 1,000 lamp lumens  
Efficiency: 58.9%  
CIE Type: Direct  
Luminaire Spacing Criteria: 0.8 - 0 Deg.  
0.8 - 90 Deg.

Candela & Lumen values are based on 1,000 lamp lumens. For other lamp lumen ratings, multiply candela and lumen values by the number: Lumens divided by 1,000.

Per 1,000 Lamp Lumens

DEG	CANDELA	LUMENS
0.0	90.0	
0	573.0	573.0
5	553.0	555.0
15	434.0	441.0
25	285.0	298.0
35	156.0	173.0
45	84.0	91.0
55	37.0	49.0
65	23.0	24.0
75	13.0	15.0
85	5.0	5.0
90	0.0	0.0



ZONAL LUMEN SUMMARY			
ZONE	LUMENS	%LAMP	%FIXT
0-30	184.0	18.4	36.8
0-40	277.0	27.7	55.4
0-60	402.0	40.2	80.4
0-90	489.0	48.9	97.8
90-180	11.0	1.1	2.2
0-180	500.0	50.0	100.0

COEFFICIENTS OF UTILIZATION - ZONAL CAVITY METHOD

	80				70				50				30				10				0
	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10	50	30	10	0
0	59	59	59	59	58	58	58	58	55	55	55	52	52	52	50	50	50	50	50	50	49
1	55	53	51	49	53	51	50	48	49	48	46	47	46	45	45	44	43	45	44	43	42
2	51	47	44	42	49	46	43	41	44	42	40	42	41	39	41	39	38	41	39	38	37
3	47	43	39	36	46	42	38	36	40	37	35	39	36	34	37	35	34	37	35	34	33
4	44	39	35	32	43	38	35	32	37	34	31	35	33	31	34	32	30	34	32	30	29
5	41	35	31	28	40	35	31	28	34	30	28	32	30	28	32	29	27	32	29	27	26
6	38	32	28	26	37	32	28	25	31	28	25	30	27	25	29	27	25	29	27	25	24
7	35	29	26	23	35	29	25	23	28	25	22	27	24	22	27	24	22	27	24	22	21
8	33	27	23	21	32	27	23	21	26	23	20	25	22	20	25	22	20	25	22	20	19
9	31	25	21	19	30	25	21	19	24	21	18	23	20	18	23	20	18	23	20	18	17
10	29	23	19	17	28	23	19	17	22	19	17	22	19	17	21	18	17	21	18	17	16

Catalog Number: TR14-358H-KSH  
Lamp: Phosphor Coated Metal Halide

Reflector: Diffuse dome reflector, frosted  
drop dish plastic refractor with  
prisms on both inside and outside  
Lumens: Per 1,000 lamp lumens  
Efficiency: 50.0%  
CIE Type: Direct  
Luminaire Spacing Criteria: 0.9 - 0 Deg.  
1.0 - 90 Deg.

Candela & Lumen values are based on 1,000 lamp lumens. For other lamp lumen ratings, multiply candela and lumen values by the number: Lumens divided by 1,000.

Per 1,000 Lamp Lumens

DEG	CANDELA	LUMENS
0.0	90.0	
0	258.0	258.0
5	248.0	253.0
15	214.0	231.0
25	168.0	195.0
35	108.0	136.0
45	64.0	84.0
55	44.0	57.0
65	33.0	41.0
75	22.0	26.0
85	12.0	15.0
90	8.0	10.0
95	6.0	7.0
105	2.0	3.0
115	1.0	1.0

