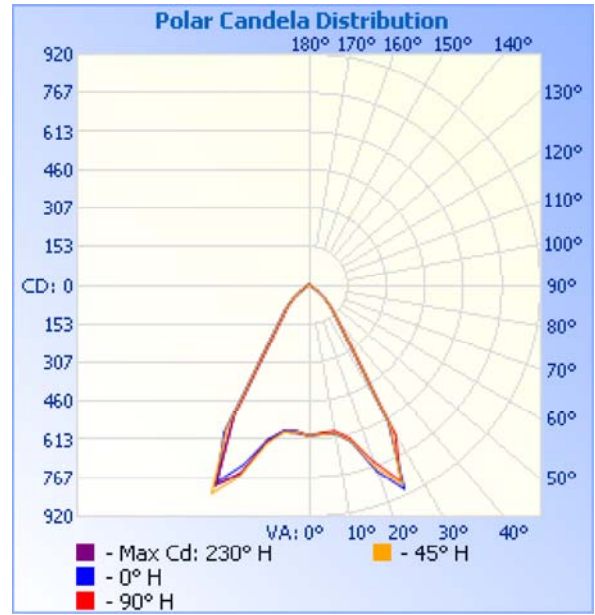


# Photometrics Pro

## Luminaire Photometric Report

**Filename:** FRK4-14W-CREE  
**Manufacturer:** ISM  
**Luminaire:** FRK4-14W  
**Lamp:** LED  
**Lamp Output:** 1 lamp, total luminaire Lumens: 959.7  
**Max Candela:** 914.6 at Horizontal: 230°, Vertical: 25°  
**Input Wattage:** 15.1  
**Luminous Opening:** Point  
**Test Date:** 2013-11-01  
**Photometry :** Type C  
**Cutoff Class:** Cutoff  
**Nema Type:** 5 X 5



### Flood Summary

	Efficiency	Lumens	Horizontal Spread	Vertical Spread
Field (10%):	94.5%	906.5	94.6	91.6
Beam (50%):	71.7%	687.9	58.7	52
<b>Total:</b>	<b>100.1%</b>	<b>960.3</b>		

### Zonal Lumen Summary

Zone	Lumens	% Luminaire
0-30	611.2	63.7%
0-40	817.5	85.2%
0-60	951.9	99.2%
60-90	7.8	0.8%
0-90	959.7	100%

### Lumens Per Zone

Zone	Lumens	% Total
0-10	56.3	5.9%
10-20	190.3	19.8%
20-30	364.6	38.0%
30-40	206.3	21.5%
40-50	96.5	10.1%
50-60	37.9	3.9%
60-70	5.7	0.6%
70-80	1.8	0.2%
80-90	0.4	0.0%



### Coefficients Of Utilization - Zonal Cavity Method

Effective Floor Cavity Reflectance: 20%

RCC %:	80				70				50				30				10				0
RW %:	70	50	30	0	70	50	30	0	50	30	20	0	50	30	20	0	50	30	20	0	0
RCR: 0	1.19	1.19	1.19	1.19	1.16	1.16	1.16	1.00	1.11	1.11	1.11	1.06	1.06	1.06	1.06	1.02	1.02	1.02	1.02	1.00	
1	1.13	1.10	1.07	1.05	1.10	1.08	1.05	.93	1.04	1.02	1.00	1.00	.98	.97	.97	.97	.95	.94	.94	.92	
2	1.07	1.01	.97	.93	1.04	1.00	.96	.85	.96	.93	.90	.93	.91	.88	.90	.88	.86	.86	.86	.85	
3	1.01	.93	.88	.84	.98	.92	.87	.78	.89	.85	.82	.87	.83	.80	.85	.82	.79	.77	.77	.77	
4	.95	.86	.80	.76	.93	.85	.80	.72	.83	.78	.74	.81	.77	.73	.79	.75	.72	.72	.72	.71	

5	.89	.80	.74	.69	.87	.79	.73	.66	.77	.72	.68	.75	.71	.67	.74	.70	.67	.65
6	.84	.74	.68	.63	.82	.73	.67	.61	.72	.66	.62	.70	.66	.62	.69	.65	.61	.60
7	.79	.69	.62	.58	.78	.68	.62	.57	.67	.61	.57	.66	.61	.57	.65	.60	.57	.55
8	.75	.64	.58	.53	.74	.64	.58	.52	.63	.57	.53	.62	.56	.53	.61	.56	.52	.51
9	.71	.60	.54	.49	.70	.60	.53	.49	.59	.53	.49	.58	.53	.49	.57	.52	.49	.47
10	.67	.56	.50	.46	.66	.56	.50	.45	.55	.49	.46	.54	.49	.45	.53	.49	.45	.44

### Luminaire Report Summary

IESNA:LM-63-1995  
 [TEST]  
 [DATE] 2013-11-01  
 [MANUFAC] ISM  
 [LUMCAT]  
 [LUMINAIRE] FRK4-14W  
 [LAMPCAT]  
 [LAMP] LED

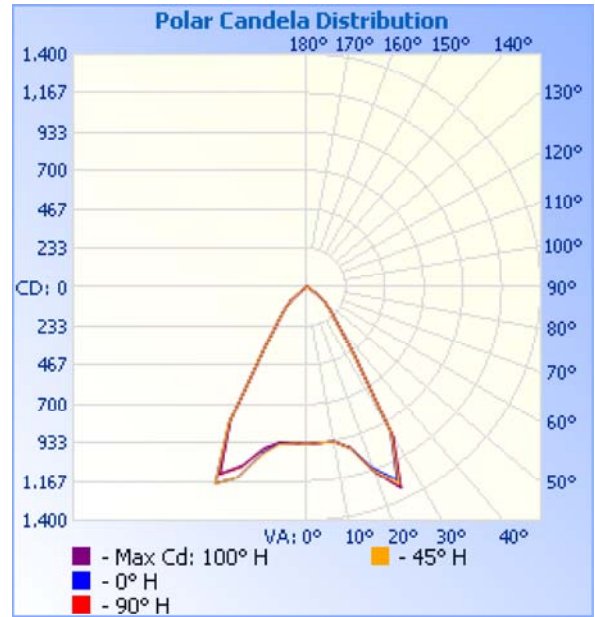
FILE: CREATED USING ABSOLUTE PHOTOMETRY  
 FILE: CANDELA MULTIPLIER: 1  
 FILE: VERTICAL ANGLES: 19, HORIZONTAL ANGLES: 73  
 FILE: COORDINATE SYSTEM: TYPE C  
 FILE: UNIT OF MEASURE: METRIC  
 FILE: BALLAST FACTOR: 1

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 Reported data calculated from manufacturer's data file, based on IES recommended methods.

# Photometrics Pro

## Luminaire Photometric Report

**Filename:** FRK4-23W-CREE  
**Manufacturer:** ISM  
**Luminaire:** FRK4-23W  
**Lamp:** LED  
**Lamp Output:** 1 lamp, total luminaire Lumens: 1487.3  
**Max Candela:** 1,331.5 at Horizontal: 100Â°, Vertical: 25Â°  
**Input Wattage:** 23  
**Luminous Opening:** Point  
**Test Date:** 2013-11-01  
**Photometry :** Type C  
**Cutoff Class:** Cutoff  
**Nema Type:** 6 X 5



	Efficiency	Lumens	Horizontal Spread	Vertical Spread
Field (10%):	95.2%	1,416.0	100.1	89.9
Beam (50%):	71.5%	1,063.4	66.1	44.9
Total:	100.1%	1,488.3		

Zone	Lumens	% Luminaire
0-30	930.5	62.6%
0-40	1,260.7	84.8%
0-60	1,474.0	99.1%
60-90	13.3	0.9%
0-90	1,487.3	100%

Zone	Lumens	% Total
0-10	89.7	6.0%
10-20	297.9	20.0%
20-30	542.9	36.5%
30-40	330.2	22.2%
40-50	154.8	10.4%
50-60	58.5	3.9%
60-70	9.4	0.6%
70-80	3.0	0.2%
80-90	0.8	0.1%



		Effective Floor Cavity Reflectance: 20%																	
RCC %:		80			70			50			30			10			0		
RW %:		70	50	30	0	70	50	30	0	50	30	20	50	30	20	50	30	20	0
RCR: 0		1.19	1.19	1.19	1.19	1.16	1.16	1.16	1.00	1.11	1.11	1.11	1.06	1.06	1.06	1.02	1.02	1.02	1.00
1		1.13	1.10	1.07	1.05	1.10	1.08	1.05	.93	1.04	1.02	1.00	1.00	.98	.97	.96	.95	.94	.92
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10	.67	.56	.50	.46	.66	.56	.50	.45	.55	.49	.45	.54	.49	.45	.53	.49	.45	.44

#### Luminaire Report Summary

IESNA:LM-63-1995  
 [TEST]  
 [DATE] 2013-11-01  
 [MANUFAC] ISM  
 [LUMCAT]  
 [LUMINAIRE] FRK4-23W  
 [LAMPCAT]  
 [LAMP] LED

FILE: CREATED USING ABSOLUTE PHOTOMETRY  
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