

PHOTOMETRICS

Center Beam Candle Power (CBCP) determines footcandle levels on work surface directly below lamp (0°, Nadir). If CBCP is 1,400, mounting height is 5'. Using the formula:

$$\frac{\text{CBCP}}{\text{Distance}^2} \text{ or } \frac{1400}{5^2}$$

we can determine footcandle level at nadir is 56 fc.

Beam Diameter is measured in feet to the point where footcandle are 50% of the maximum level. If the light level at nadir is 56 fc then at 1.35 feet in any direction on the horizontal plane, from nadir, the light level will be 28 fc.

Footcandles (fc) is the measurement of light level at nadir on the work surface from the specified mounting height.

Mounting Height is the distance from the lamp to the work surface

Distance to the center of the beam

Beam° refers to the angle at which foot-candle levels fall to half the maximum level.

if the light level at nadir is 56 fc, then 15° either side of nadir the level would drop to 28 fc.

Aiming Angle 0° Aiming Angle 45°

Beam Spread	CBCP	Aiming Angle 0°				Aiming Angle 45°				
		D	FC	L	W	D	C	FC	L	W
20W MR16 NSP (ESX)	3600	6'	100	1.4'	1.4'	3'	3'	141	1.4'	1.0'
		8'	56	1.8'	1.8'	5'	5'	51	2.3'	1.6'
		10'	36	2.3'	2.3'	7'	7'	26	3.2'	2.3'
		12'	25	5.7'	5.7'	9'	9'	16	4.2'	2.9'
35W MR16 NSP (FRB)	8700	7'	178	1.5'	1.5'	4'	4'	192	1.7'	1.2'
		10'	87	2.1'	2.1'	6'	6'	85	2.6'	1.8'
		13'	51	1.7'	1.7'	8'	8'	48	3.4'	2.4'
		16'	34	3.4'	3.4'	10'	10'	31	4.3'	3.0'
50W MR16 NSP (EXT)	10,200	8'	159	2.0'	2.0'	5'	5'	144	2.5'	1.7'
		12'	71	2.9'	2.9'	7'	7'	74	3.5'	2.4'
		16'	40	3.9'	3.9'	9'	9'	45	4.5'	3.1'
		20'	26	4.9'	4.9'	11'	11'	30	5.5'	3.8'
35W MR16 SP (FRA)	3900	6'	108	2.1'	2.1'	3'	3'	153	2.2'	1.5'
		8'	61	2.8'	2.8'	5'	5'	55	3.6'	2.5'
		10'	39	3.5'	3.5'	7'	7'	28	5.1'	3.5'
		12'	27	4.2'	4.2'	9'	9'	17	6.6'	4.5'
50W MR16 NFL (SYS)	3400	4'	150	1.9'	1.9'	3'	3'	94	3.1'	2.0'
		6'	94	2.9'	2.9'	4'	4'	134	3.0'	2.0'
		8'	53	3.8'	3.8'	5'	5'	48	5.1'	3.4'
		10'	34	4.8'	4.8'	7'	7'	25	7.1'	4.8'
20W MR16 FL (BAB)	525	2'	131	1.5'	1.5'	2'	2'	46	3.4'	2.1'
		3'	58	2.2'	2.2'	3'	3'	21	5.0'	3.1'
		4'	33	2.9'	2.9'	4'	4'	12	6.7'	4.1'
		5'	21	3.6'	3.6'	5'	5'	7	8.4'	5.1'
35W MR16 FL (FMW)	1600	4'	100	2.9'	2.9'	3'	3'	63	5.0'	3.1'
		6'	44	4.4'	4.4'	4'	4'	35	6.5'	4.1'
		8'	25	5.8'	5.8'	5'	5'	23	8.4'	5.1'
		10'	16	7.3'	7.3'	6'	6'	16	10.1'	6.2'
50W MR16 FL (EXN)	1850	4'	116	2.9'	2.9'	3'	3'	73	5.0'	3.1'
		6'	51	4.4'	4.4'	4'	4'	41	6.7'	4.1'
		8'	29	5.8'	5.8'	5'	5'	26	8.4'	5.1'
		10'	19	7.3'	7.3'	6'	6'	18	10.1'	6.2'
20W MR11 NFL	600	3'	67	1.6'	1.6'	2'	2'	53	2.3'	1.5'
		5'	24	2.7'	2.7'	3'	3'	24	3.5'	2.3'
		7'	12	3.8'	3.8'	4'	4'	13	4.6'	3.0'
		9'	7	4.8'	4.8'	5'	5'	8	5.8'	3.8'
35W MR11 NSP	9000	7'	164	1.0'	1.0'	4'	4'	199	1.1'	0.8'
		10'	90	1.4'	1.4'	6'	6'	88	1.7'	1.2'
		13'	53	1.8'	1.8'	8'	8'	50	2.2'	1.6'
		16'	35	2.2'	2.2'	10'	10'	32	2.8'	2.0'
35W MR11 NFL	1300	3'	144	1.6'	1.6'	2'	2'	115	2.3'	1.5'
		5'	52	2.7'	2.7'	3'	3'	51	3.5'	2.3'
		7'	27	3.8'	3.8'	4'	4'	29	4.6'	3.0'
		9'	16	4.8'	4.8'	5'	5'	18	5.8'	3.8'
35W PAR20 (MC/MH) SP	28000	10'	280	1.7'	1.7'	6'	6'	275	2.1'	1.5'
		15'	124	2.6'	2.6'	9'	9'	122	3.2'	2.2'
		20'	70	3.5'	3.5'	12'	12'	69	4.2'	3.0'
		25'	45	4.4'	4.4'	15'	15'	44	5.3'	3.7'
35W PAR20 (MC/MH) FL	6000	6'	167	3.2'	3.2'	3'	3'	236	3.5'	2.3'
		8'	94	4.3'	4.3'	5'	5'	85	5.8'	3.8'
		10'	60	5.4'	5.4'	7'	7'	43	8.1'	5.3'
		12'	42	6.4'	6.4'	9'	9'	26	10.4'	6.8'
50W PAR20 (HALOGEN) NSP	6000	6'	187	0.8'	0.8'	3'	3'	236	0.8'	0.6'
		8'	94	1.1'	1.1'	5'	5'	85	1.4'	1.0'
		10'	60	1.4'	1.4'	7'	7'	43	2.0'	1.4'
		12'	42	1.7'	1.7'	9'	9'	26	2.5'	1.8'
50W PAR20 (HALOGEN) SP	3200	6'	89	1.6'	1.6'	3'	3'	126	1.6'	1.1'
		8'	50	2.1'	2.1'	5'	5'	45	2.7'	1.9'
		10'	32	2.6'	2.6'	7'	7'	23	3.8'	2.6'
		12'	22	3.2'	3.2'	9'	9'	14	4.8'	3.4'
75W PAR16 (HALOGEN) NSP	7500	7'	153	1.2'	1.2'	4'	4'	166	1.4'	1.0'
		10'	75	1.7'	1.7'	6'	6'	74	2.1'	1.5'
		13'	44	2.3'	2.3'	8'	8'	41	2.8'	2.0'
		16'	29	2.6'	2.6'	10'	10'	27	3.5'	2.5'
35W PAR20 (HALOGEN) NFL	900	3'	100	1.6'	1.6'	2'	2'	80	2.3'	1.5'
		5'	36	2.7'	2.7'	3'	3'	35	3.5'	2.3'
		7'	18	3.8'	3.8'	4'	4'	20	4.6'	3.0'
		9'	11	4.8'	4.8'	5'	5'	13	5.8'	3.8'
50W PAR30 (HALOGEN) NFL	2000	4'	125	1.8'	1.8'	3'	3'	79	2.8'	1.9'
		6'	56	2.7'	2.7'	4'	4'	44	3.7'	2.5'
		8'	31	3.5'	3.5'	5'	5'	28	4.7'	3.1'
		10'	20	4.4'	4.4'	6'	6'	20	5.6'	3.8'

