



**LIGHTING UNIT DETAIL**  
NOT TO SCALE

**KEYED NOTES:**

- 1 103 WATT, HORIZONTAL MOUNT (COBRA HEAD) LED LUMINAIRE, TYPE III DISTRIBUTION, BLACK FINISH.
- 2 8'-0" TAPERED ELLIPTICAL ALUMINUM MAST ARM WITH BLACK FINISH.
- 3 ONE PIECE SEAMLESS ROUND TAPERED ALUMINUM POLE WITH BLACK FINISH, WALL THICKNESS 0.25".
- 4 4" x 8" HANDHOLE.
- 5 POLES SHALL HAVE A GROUND LUG OPPOSITE HANDHOLE.
- 6 BASE FLANGE WITH BOLT COVERS (4).
- 7 TOP OF FOUNDATION SHALL BE 1 1/2" ABOVE TOP OF CURB OR EDGE OF PAVEMENT UNLESS OTHERWISE DIRECTED BY THE ENGINEER.

LIGHTING FIXTURE SCHEDULE						
FIXT. TYPE	DESCRIPTION	MANUFACTURER & CATALOG NO.	LAMPS/ WATTS	VOLTS	MOUNTING	REMARKS
F1	POLE MOUNTED LED HORIZONTAL MOUNT COBRA HEAD ROADWAY LUMINAIRE, HEAVY GAUGE EXTRUDED ALUMINUM HOUSING, IP66 RATED FOR WEATHER AND BUG TIGHTNESS, BAKED ON BLACK POLYESTER POWDER COAT FINISH, ANODIZED ALUMINUM TYPE III FULL CUTOFF OPTICS, HORIZONTALLY MOUNTED HPF LED 320 MA DRIVERS WITH THD LESS THAN 20%.	COOPER/ LUMARK: LDRC-SL3-A04-E-BK OR APPROVED EQUAL	4-LED LIGHT BARS, 4000 DEG. K, 103 TOTAL INPUT WATTS	277	MOUNTED ON TOP OF A 30'-0" POLE WITH AN 8'-0" MAST ARM	SUPPLY A POLE CAPABLE OF WITHSTANDING A 100 MPH WIND LOAD AT A MINIMUM RATED EPA OF 1.9. MINIMUM WALL THICKNESS OF 0.25 IN.  SPECIFIED FIXTURE EPA RATING EQUALS 0.8 SQ. FT. EACH

ILLINOIS DEPARTMENT OF TRANSPORTATION LUMINAIRE PERFORMANCE TABLE (STAGGERED PATTERN W/O MEDIAN)		
GIVEN CONDITIONS		
ROADWAY DATA:	PAVEMENT WIDTHS	34 FT
	NUMBER OF LANES	2
	MEDIAN WIDTH	0 FT
	IES SURFACE CLASSIFICATION	R1
	Q-ZERO VALUE	0.10
LIGHT POLE DATA:	MOUNTING HEIGHT	30 FT
	MAST ARM LENGTH	8 FT
	POLE SET-BACK FROM EDGE OF PAVEMENT	2.5 FT
LUMINAIRE DATA:	LAMP TYPE	103W LED
	LAMP LUMENS	6,894
	IES VERTICAL DISTRIBUTION	MEDIUM
	IES CONTROL OF DISTRIBUTION	CUTOFF
	IES LATERAL DISTRIBUTION	TYPE III
	TOTAL LIGHT LOSS FACTOR	0.9
LAYOUT DATA:	SPACING	260 FT
	CONFIGURATION	SINGLE HEAD POLE MOUNT
	LUMINAIRE OVERHANG OVER EDGE OF PAVEMENT LINE	5.5 FT
NOTE: VARIATIONS FROM THE ABOVE SPECIFIED IES DISTRIBUTION PATTERN MAY BE REQUESTED AND ACCEPTANCE OF VARIATIONS WILL BE SUBJECT TO REVIEW BY THE ENGINEER BASED ON HOW WELL THE PERFORMANCE REQUIREMENTS ARE MET.		
PERFORMANCE REQUIREMENTS		
NOTE: THESE PERFORMANCE REQUIREMENTS SHALL BE THE MINIMUM ACCEPTABLE STANDARDS OF PHOTOMETRIC PERFORMANCE FOR THE LUMINAIRE, BASED ON THE GIVEN CONDITIONS LISTED ABOVE.		
ILLUMINATION:	AVERAGE HORIZONTAL ILLUMINATION, (EAVE)	0.9 FC
	UNIFORMITY RATIO, (EAVE/EMIN)	1.3
LUMINANCE:	AVERAGE LUMINANCE: (LAVE)	0.7 Cd/m2
	UNIFORMITY RATIOS: (LAVE/LMIN)	2.3
	(LMAX/LMIN)	5.3
	MAXIMUM VEILING LUMINANCE RATIO: (LV/LAVE)	0.3

ILLINOIS DEPARTMENT OF TRANSPORTATION LUMINAIRE PERFORMANCE TABLE (STAGGERED PATTERN WITH MEDIAN)		
GIVEN CONDITIONS		
ROADWAY DATA:	PAVEMENT WIDTHS	53 FT
	NUMBER OF LANES	2
	MEDIAN WIDTH	14 FT
	IES SURFACE CLASSIFICATION	R1
	Q-ZERO VALUE	0.10
LIGHT POLE DATA:	MOUNTING HEIGHT	30 FT
	MAST ARM LENGTH	8 FT
	POLE SET-BACK FROM EDGE OF PAVEMENT	2.5 FT
LUMINAIRE DATA:	LAMP TYPE	103W LED
	LAMP LUMENS	6,894
	IES VERTICAL DISTRIBUTION	MEDIUM
	IES CONTROL OF DISTRIBUTION	CUTOFF
	IES LATERAL DISTRIBUTION	TYPE III
	TOTAL LIGHT LOSS FACTOR	0.9
LAYOUT DATA:	SPACING	200 FT
	CONFIGURATION	SINGLE HEAD POLE MOUNT
	LUMINAIRE OVERHANG OVER EDGE OF PAVEMENT LINE	5.5 FT
NOTE: VARIATIONS FROM THE ABOVE SPECIFIED IES DISTRIBUTION PATTERN MAY BE REQUESTED AND ACCEPTANCE OF VARIATIONS WILL BE SUBJECT TO REVIEW BY THE ENGINEER BASED ON HOW WELL THE PERFORMANCE REQUIREMENTS ARE MET.		
PERFORMANCE REQUIREMENTS		
NOTE: THESE PERFORMANCE REQUIREMENTS SHALL BE THE MINIMUM ACCEPTABLE STANDARDS OF PHOTOMETRIC PERFORMANCE FOR THE LUMINAIRE, BASED ON THE GIVEN CONDITIONS LISTED ABOVE.		
ILLUMINATION:	AVERAGE HORIZONTAL ILLUMINATION, (EAVE)	0.9 FC
	UNIFORMITY RATIO, (EAVE/EMIN)	1.8
LUMINANCE:	AVERAGE LUMINANCE: (LAVE)	0.7 Cd/m2
	UNIFORMITY RATIOS: (LAVE/LMIN)	3.5
	(LMAX/LMIN)	8.0
	MAXIMUM VEILING LUMINANCE RATIO: (LV/LAVE)	0.3

LAYOUT P.J.T. 04/07/10 HUSS004H  
 DRAWN ANC 11/04/10 11/05/2010  
 REVIEWED P.J.T. 11/04/10 11/05/2010  
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