

DESIGN AREA WIDTH							
	12' - 17'	18' - 23'	24' - 29'	30' - 35'	36' - 47'	48' - 59'	60' - 71'
75							LP2
80							
85							
90	LP2					LP2	
95		LP2			LP2		
100							
105							LP3
110							
115							
120						LP3	
125							
130	LP3	LP3	LP3	LP3	LP3		
135							
140						LP4	
145							
150							
155						LP4	
160							
165	LP4	LP4	LP4	LP4	LP4		
170							
175							LP5
180							
185							
190							
195						LP5	
200							
205	LP5			LP5	LP5		
210		LP5	LP5				
215							
220							
225							
230						LP6	LP6
235							
240				LP6	LP6		
245	N/A*	N/A*	N/A*				
250							

TYPE LP LUMINAIRE QUALIFICATION CHART - 40' NMH
(* - See Design Notes 7 - 9)

DESIGN AREA WIDTH					
	12' - 17'	18' - 23'	24' - 29'	30' - 35'	36' - 47'
75					
80					
85					LP1
90					
95	LP1	LP1	LP1	LP1	
100					
105					
110					
115					
120					
125					LP2
130				LP2	LP2
135					
140			LP2		
145	LP2	LP2			
150					
155					
160					LP3*
165				LP3*	
170					
175	N/A*	N/A*	N/A*		N/A*

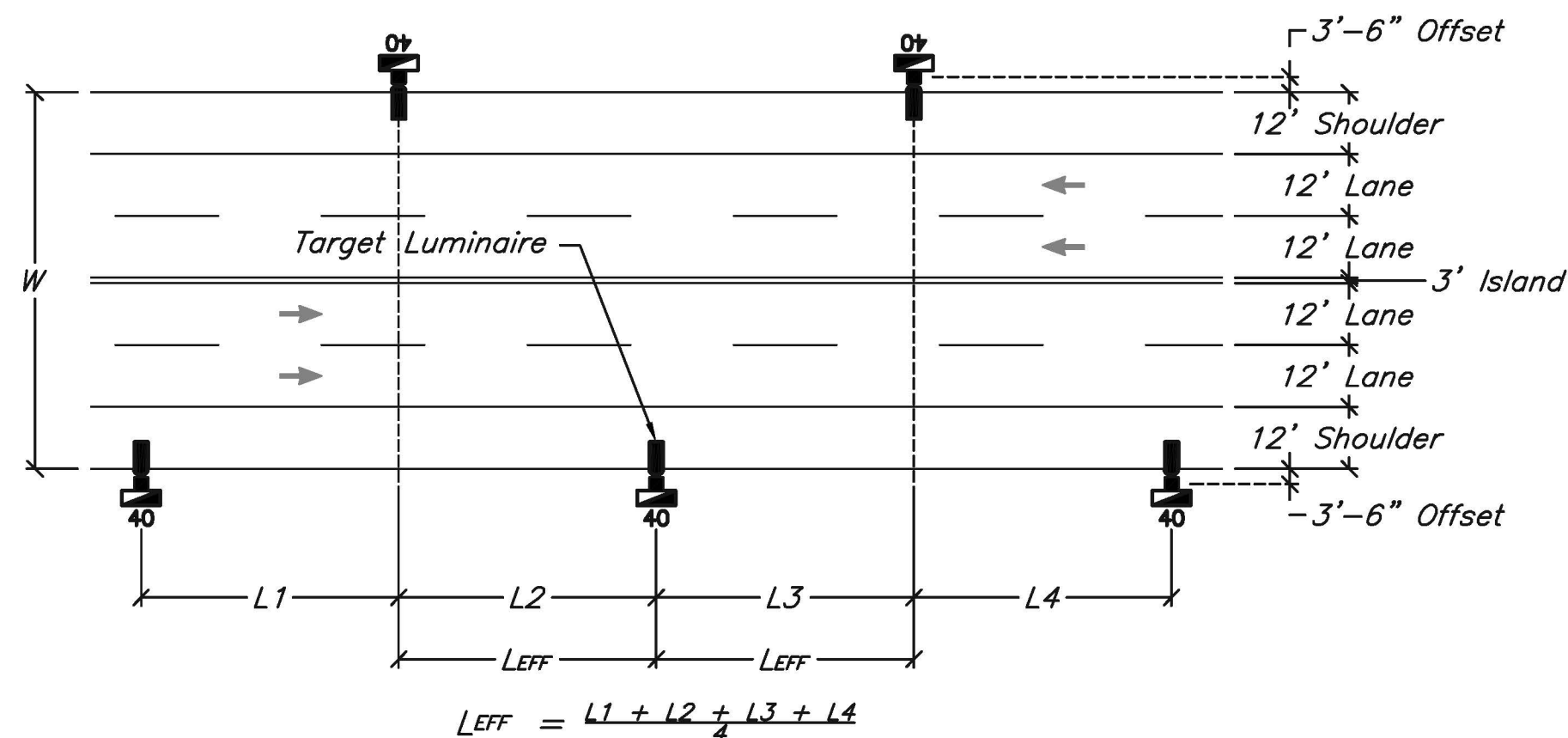
TYPE LP LUMINAIRE QUALIFICATION CHART - 26' NMH
(* - See Design Notes 7 - 9)

DESIGN NOTES:

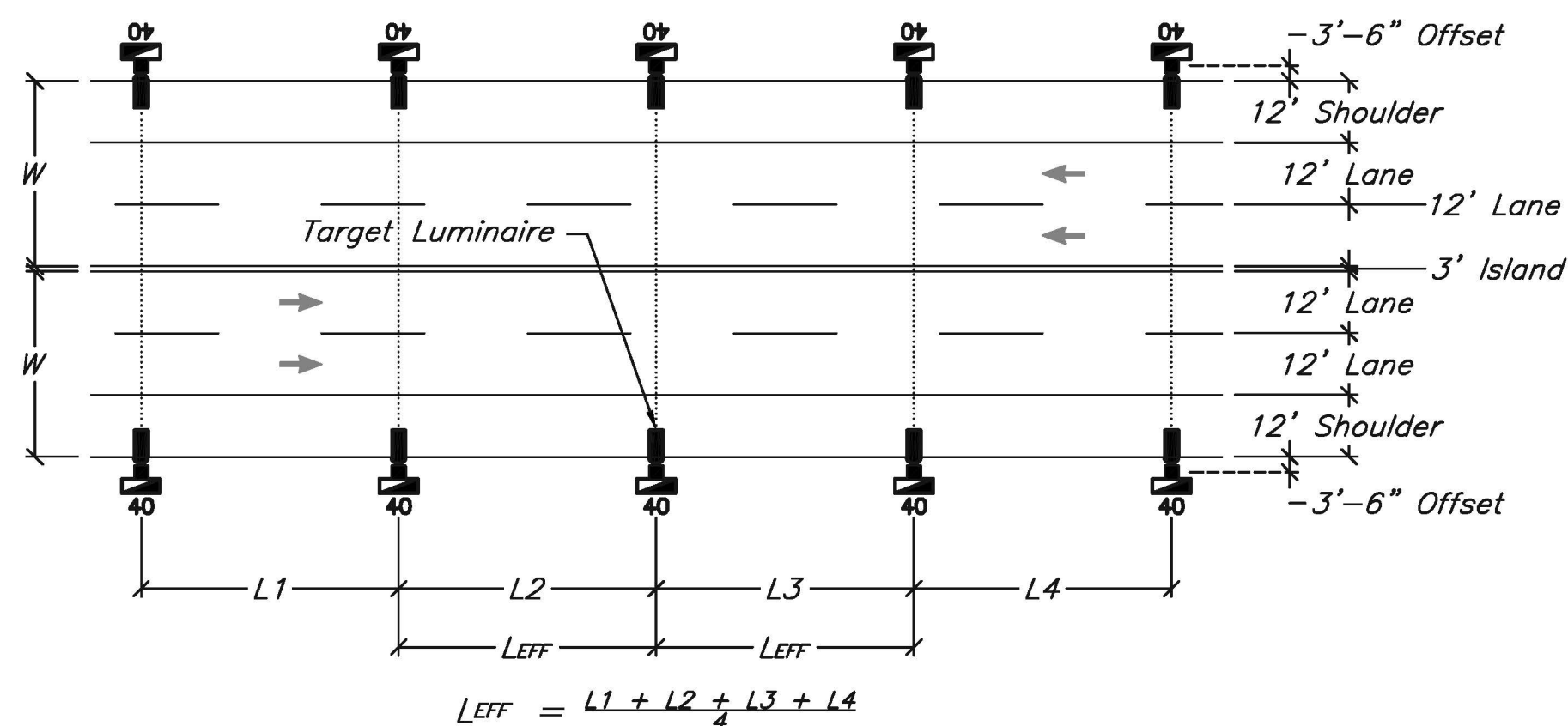
- The Qualification Charts shown on this sheet may also be used as a basis for design or replacement of existing luminaires, given the following are true:
 - Radius of roadway is > 1000 feet.
 - Design criteria, as shown in Design Manual, is 0.70 - 0.85 foot-candles
- Chart does not apply to very wide roadways, multi-level interchanges, services areas, parking lots, toll plazas, etc. which require higher light levels as detailed in the Authority's Design Manual.
- To perform the design using this chart:
 - Determine the calculation width of the installation as shown in Details 2 and 3.
 - Determine the height of the poles (H) and pole spacing (Leff).
 - Look up the proper fixture in the chart.
 - See Detail 1 on this sheet for areas where pole spacing is not even, or alternate/staggered pole arrangements are provided.
- All mounting heights shown and referenced may vary, and are to be considered Nominal Mounting Height (NMH) classifications. Actual mounting height for each height class may vary slightly depending on pole type, mounting method, and type of location.
- Leff spacing is intended for Target Luminaire. Leff must be determined for each luminaire in a similar manner.
- Luminaire symbol shown in Detail 1 is for demonstration purposes only. See Contract Plans for actual luminaire height, type, and mounting type.
- Any Qualification Table section marked as "N/A" may potentially utilize one of the next luminaires in succession with acceptable results. These instances shall be evaluated on a case-by-case basis, and results may vary due to individual geometry and topography.
- Luminaire LP6 is primarily for roadways 60' wide and greater, toll plaza approaches, parking areas, and areas with special geometry. In some locations, luminaire LP6 may also be used for light standard spacing greater than 250'.
- Luminaire LP7 is primarily for toll plazas and parking areas. It may be used for special geometry only in cases where other approved luminaires are proven to not work.

QUALIFICATION NOTES:

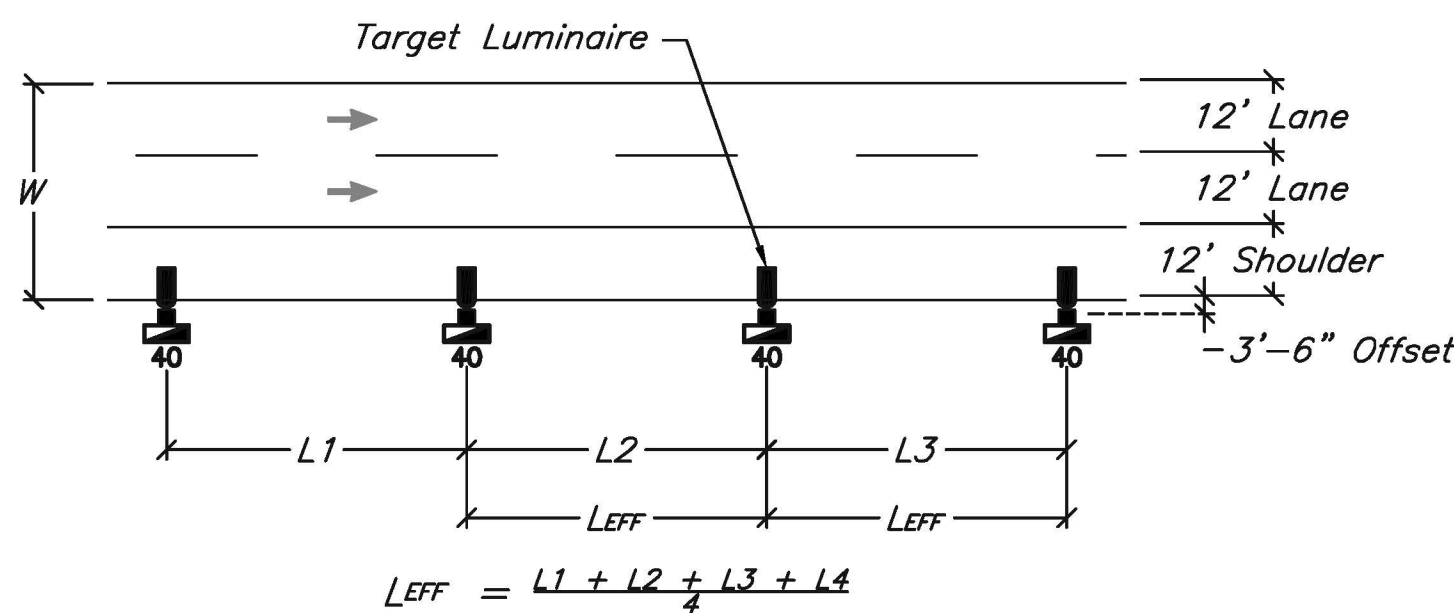
- Qualification Charts shown on this sheet shall be used as a basis for approval for LED luminaires.
- In order for manufacturers to be approved as Type LP (LED Pole-Top) luminaires, the following criteria shall be met:
 - One model number shall be submitted to the Authority for each type of luminaire shown in the chart. Electronic calculations shall be provided proving that the stated model number meets all illumination design criteria for each combination of roadway width, pole spacing, and pole height. (See Note 4 for calculation requirements).
 - Luminaire shall be rated for a minimum 20-year service life.
 - Color temperature shall be 4000-5000°K nominal.
 - Tilt shall be zero degrees.
 - Mounting of the luminaire shall be compatible with the Authority's L-MG-40/L-MG-40SB and L-MG-26/L-MG-26SB lighting standards (See Standard Drawing E-02 and E-03).
 - All Authority specifications for LED luminaires, including temperature, manufacture style, materials, etc. shall be met. See Standard Specifications.
- The illumination design criteria used for development of this table are as follows:
 - Average illumination is greater than 0.70 foot-candles, and less than 1.20 foot-candles
 - Uniformity Ratio (average: minimum) is less than 4:1
 - Minimum illumination value is 0.20 foot-candles
- See the Authority's Design Manual for calculation methods. Submit three copies of all relevant calculations to the Authority on CD or other non-volatile media.
- Luminaires deemed by the Chief Engineer to meet all stated requirements will be added to Qualified Materials List. Construction contracts shall use only those luminaires shown on this list. Provide at least two months for review after submission.
- Sections in the Qualification Tables marked with an asterisk (Ex.: "N/A*" or "LPx*") are not required for luminaire approval. Also, see Design Notes 7-9.



STAGGERED ARRANGEMENT



OPPOSITE ARRANGEMENT

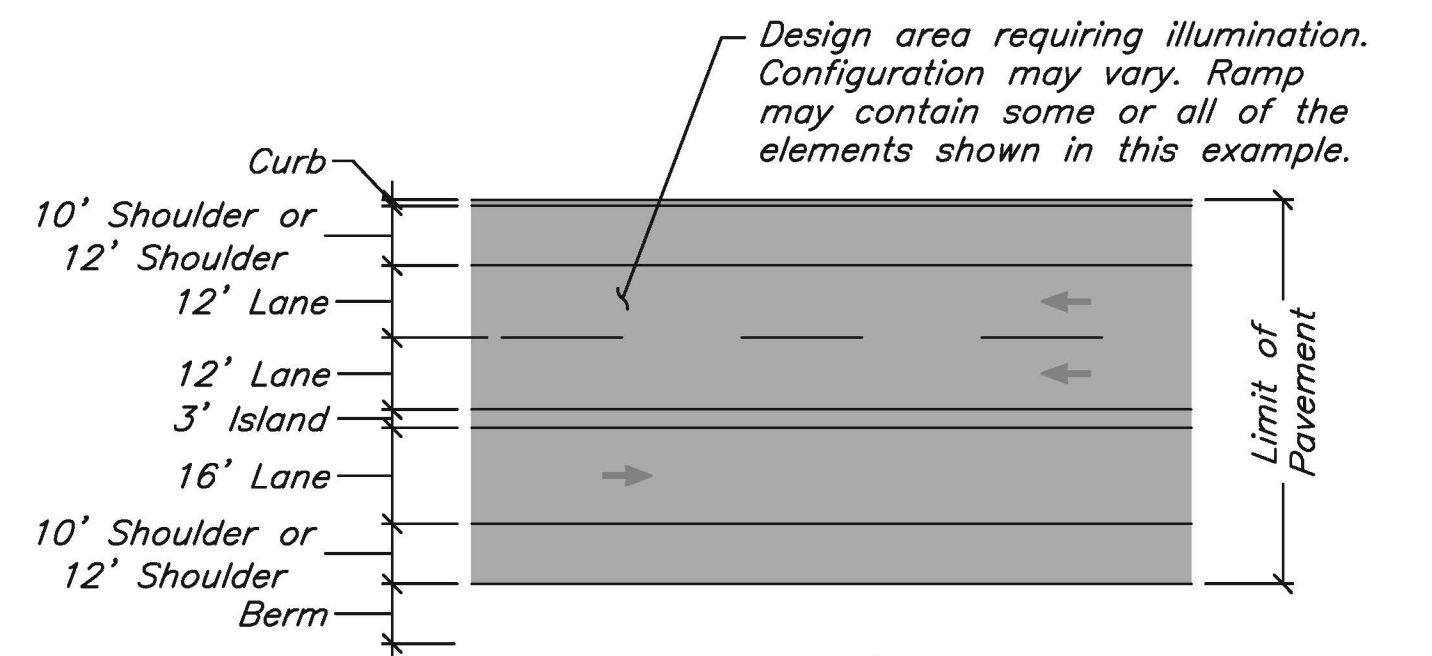


ONE-SIDED ARRANGEMENT

If you use this DWG:	
You also need	
You may need	E-01, E-02, E-03

DETAIL 2
DESIGN AREA WIDTH (W) EXAMPLES

Target Range .70 fc - .85 fc, .20 fc min., >4.0:1 Uniformity



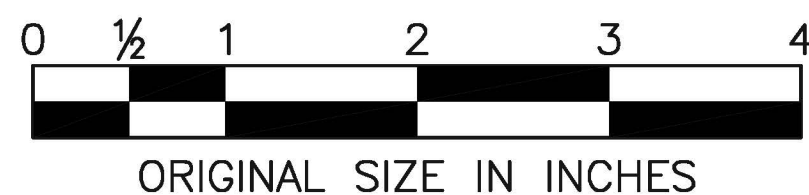
DETAIL 3
REQUIRED DESIGN AREA FOR TYPICAL RAMP

Target Range .70 fc - .85 fc, .20 fc min., >4.0:1 Uniformity

	BY	DATE
MADE	MCG	12/2013
TRACED	MDC	12/2013
CHECKED	ALB	12/2013
SUPERVISED	ALB	12/2013

DETAIL 1
METHODS TO DETERMINE POLE SPACING

Not to Scale
(See Design Notes 4 - 6)



	C	3/2014	CONFORMED DRAWING
APP.	NO.	DATE	REVISION

CONTRACT NO.

SHEET NO.

OF

NEW JERSEY TURNPIKE AUTHORITY	
NEW JERSEY TURNPIKE	
TYPE LP LUMINAIRE QUALIFICATION CRITERIA TABLES	
HNTB 9 ENTIN ROAD, SUITE 202, PARSIPPANY, NJ 07054 - COA# 24GA28000700	STANDARD DRAWING
ANTHONY L. BARTELLO	E-28
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