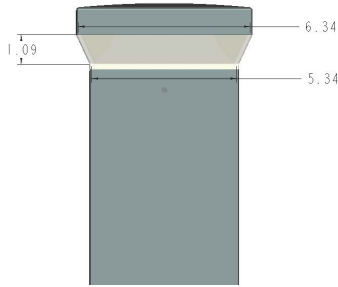
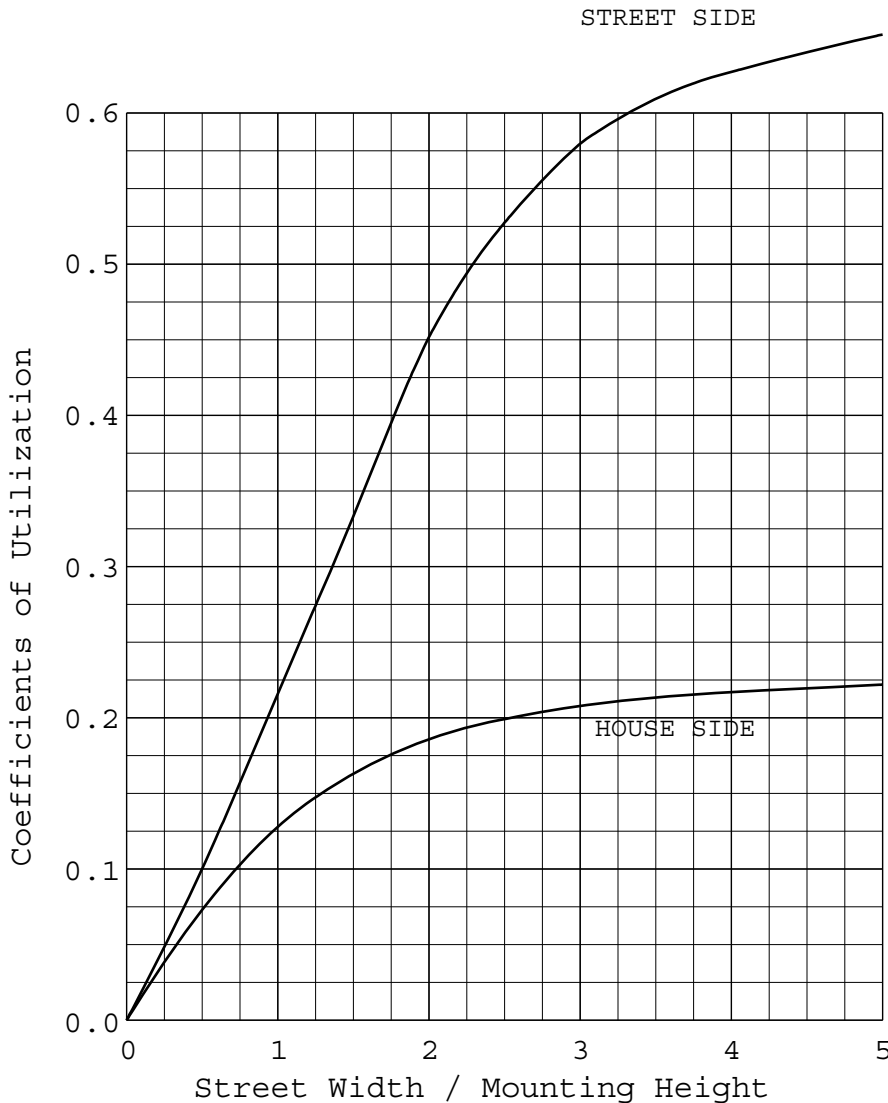


COEFFICIENTS OF UTILIZATION AND FLUX DISTRIBUTION



REPORT NUMBER: PRORATED FROM RAB03692
 ISSUE DATE: 08/29/17 PAGE: 1 OF 11
 PREPARED FOR: RAB LIGHTING INC. RC
 LIGHTING
 CATALOG NUMBER: BLED12N, BLED12N/D10
 (42" SQUARE BOLLARD W/LED @
 90-DEGREES)
 (SEE PAGE 2 FOR MORE INFORMATION)



	LUMENS	PERCENT OF FIXTURE
DOWNWARD STREET SIDE	912.	69.4
DOWNWARD HOUSE SIDE	309.	23.5
DOWNWARD TOTAL	1222.	92.9
UPWARD STREET SIDE	61.	4.6
UPWARD HOUSE SIDE	32.	2.4
UPWARD TOTAL	93.	7.1
TOTAL FLUX	1315.	100.0

TOTAL INPUT WATTS = 12.1

EFFICACY = 108.7 Lm/W

Checked X.CAO

Approved D.WANG-MUNSON

ALL CANDELA AND LUMENS IN THIS REPORT ARE BASED ON ABSOLUTE PHOTOMETRY.
 THE COEFFICIENT OF UTILIZATION VALUES ARE BASED ON THE TOTAL ABSOLUTE
 LUMEN OUTPUT OF THIS LUMINAIRE SAMPLE.

REPORT NUMBER: PRORATED FROM RAB03692
ISSUE DATE: 08/29/17
PREPARED FOR: RAB LIGHTING INC. RC LIGHTING

PAGE: 2 OF 11

ADDITIONAL INFORMATION

LUMINAIRE: EXTRUDED BROWN PAINTED SQUARE METAL LOWER HOUSING, CAST METAL TOP, CAST FINNED METAL HEAT SINK WITH WHITE PAINTED INTERIOR, MOLDED SPECULAR FINISHED PLASTIC REFLECTOR WITH WHITE CORNER DIVIDERS CREATING 4 OPTICAL COMPARTMENTS, 2 OPTICAL COMPARTMENT CONTAINS 1 WHITE CIRCUIT BOARD WITH 5 LEDS, FROSTED PLASTIC LENS, CAST BROWN PAINTED METAL BOTTOM.

LAMP: TEN LIGHT EMITTING DIODES (LEDS).

NOTE: THIS REPORT WAS PRORATED FROM RAB03692 WHICH WAS BLED12Y, BLED12Y/D10 . ACTUAL PERFORMANCE MAY VARY.

TOTAL INPUT WATTS = 12.1 W AT 277.0 VAC.

LED DRIVER: RDD-15W-032SE-A0350

TEST PROCEDURE: IESNA LM-79-08

LM-80 DATA AVAILABLE FROM MANUFACTURER FOR SOLID STATE SOURCE

REPORT NUMBER: PRORATED FROM RAB03692
 ISSUE DATE: 08/29/17
 PREPARED FOR: RAB LIGHTING INC. RC LIGHTING

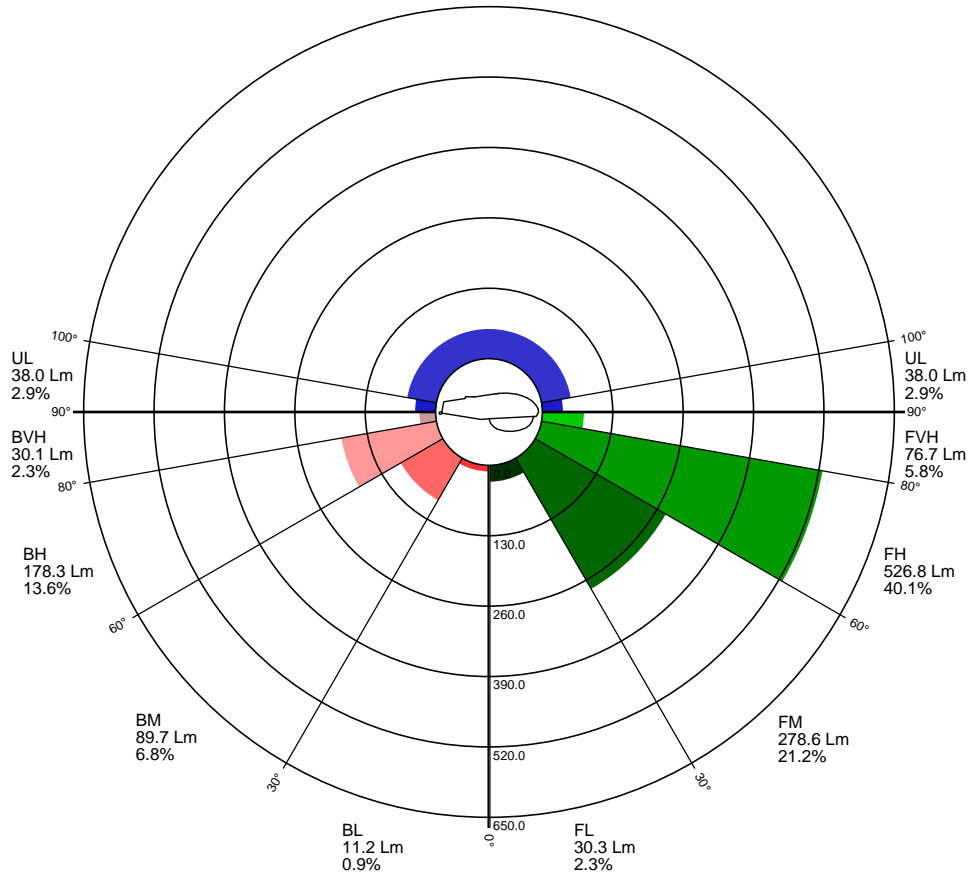
PAGE: 3 OF 11

BUG Rating:				B1 U3 G1		
Zonal Summary		Lumens	% of Fixture	Zone Ratings		
				B	U	G
Forward		912	69.4			
FL	(0° - 30°)	30.3	2.3			
FM	(30° - 60°)	278.6	21.2			
FH	(60° - 80°)	526.8	40.1			G0
FVH	(80° - 90°)	76.7	5.8			G1
Backward		309	23.5			
BL	(0° - 30°)	11.2	0.9	B0		
BM	(30° - 60°)	89.7	6.8	B0		
BH	(60° - 80°)	178.3	13.6	B1		G1
BVH	(80° - 90°)	30.1	2.3			G1
Upward		93	7.1			
UL	(90° - 100°)	38.0	2.9		U2	
UH	(100° - 180°)	54.8	4.2		U3	
Trapped Light		0	0.0			
Total Flux		1315	100.0			

Zonal Lumen Summary

(Linear scale)

UH
54.8 Lm
4.2%

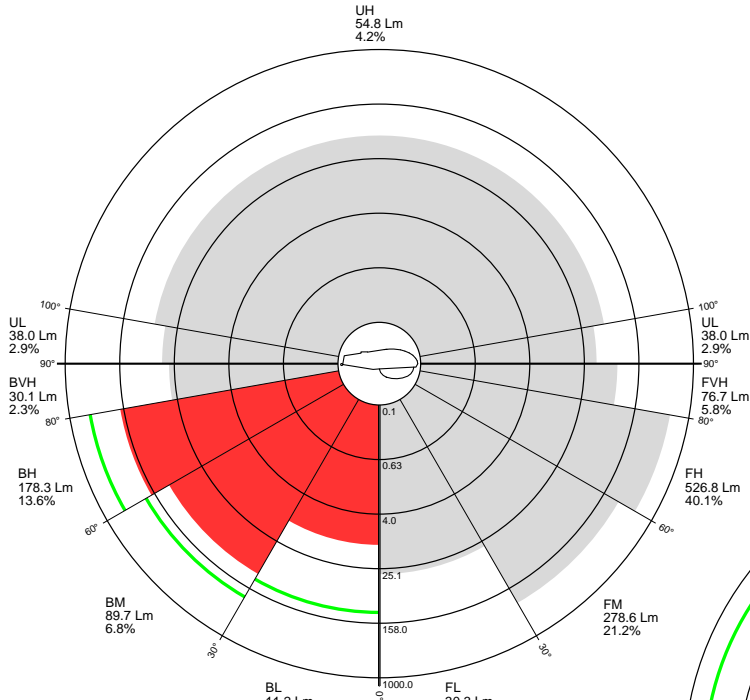


REPORT NUMBER: PRORATED FROM RAB03692
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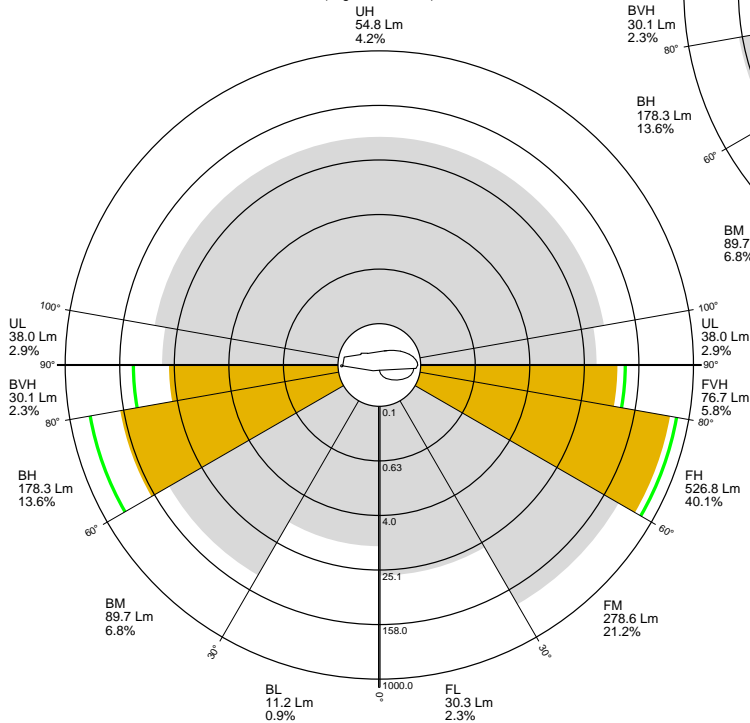
Backlight Rating Details

(Logarithmic scale)



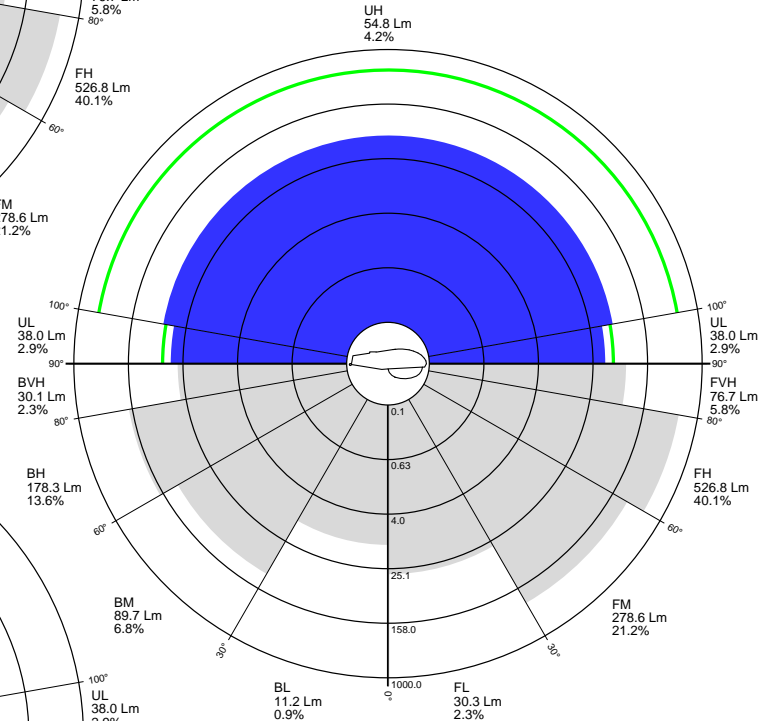
Glare Rating Details

(Logarithmic scale)



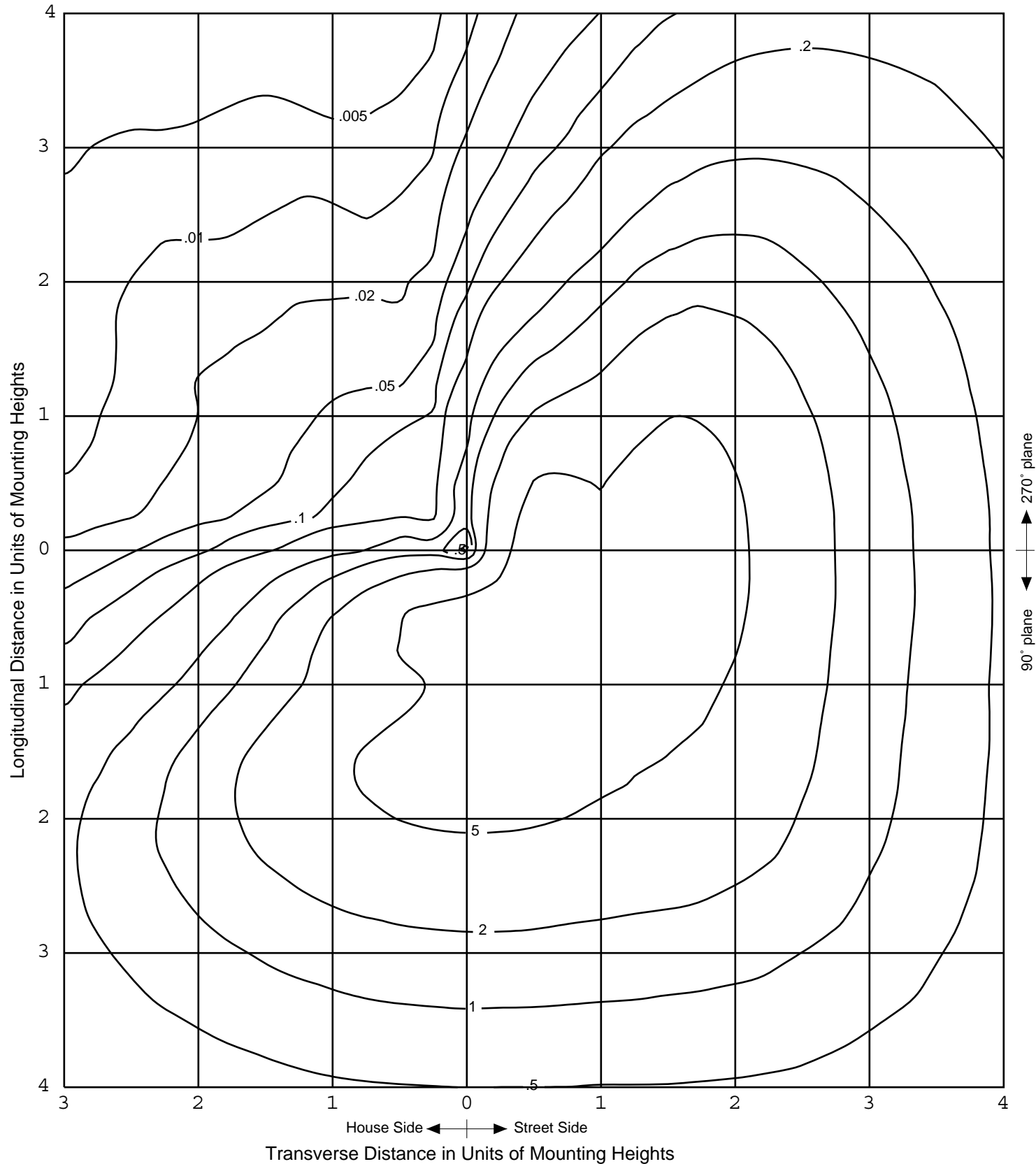
Uplight Rating Details

(Logarithmic scale)



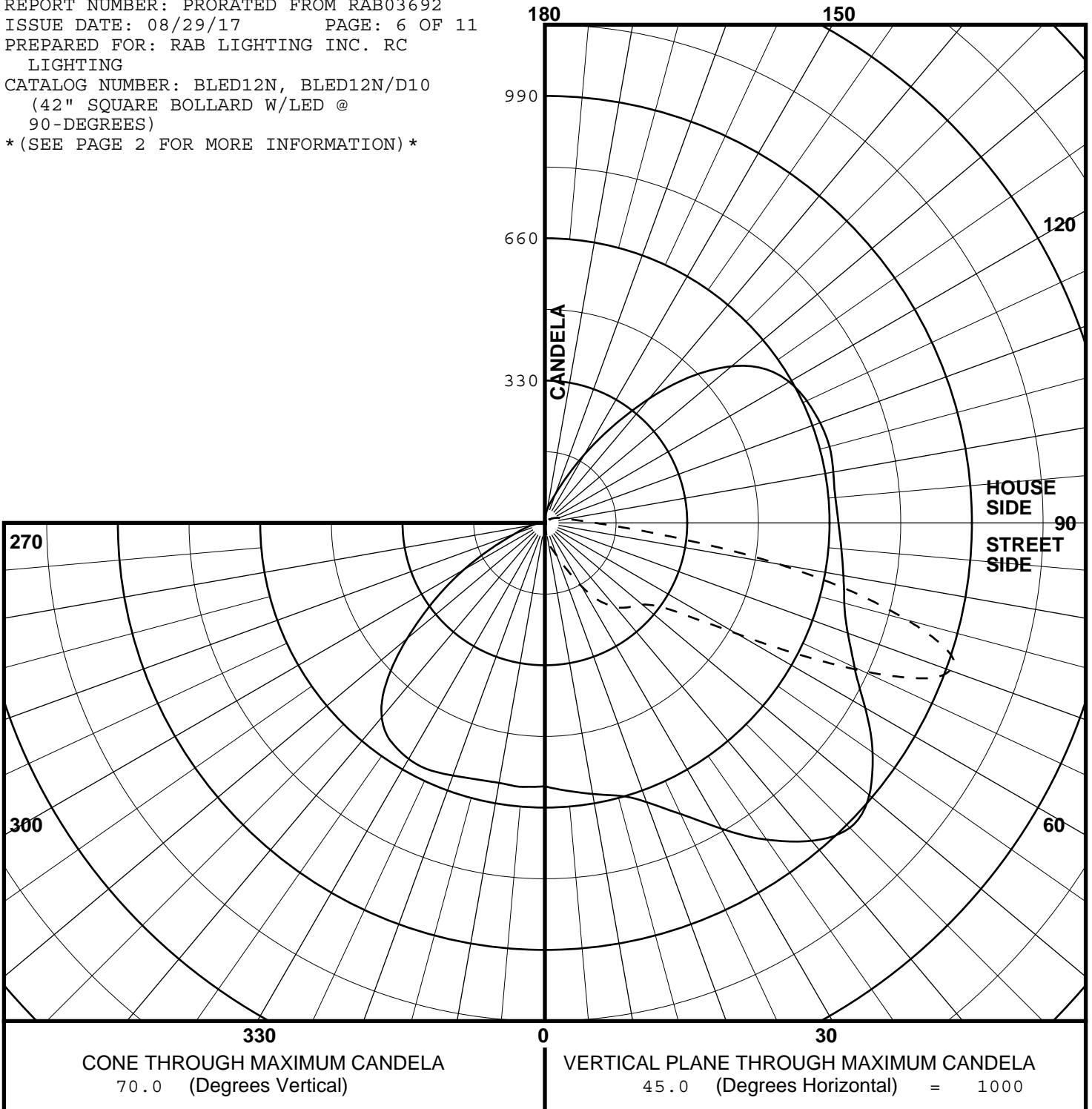
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ISOFOOTCANDLE LINES OF HORIZONTAL ILLUMINATION
Values based on 3.5 foot mounting height.



MAXIMUM PLANE AND MAXIMUM CONE PLOTS OF CANDELA

REPORT NUMBER: PRORATED FROM RAB03692
ISSUE DATE: 08/29/17 PAGE: 6 OF 11
PREPARED FOR: RAB LIGHTING INC. RC
LIGHTING
CATALOG NUMBER: BLED12N, BLED12N/D10
(42" SQUARE BOLLARD W/LED @
90-DEGREES)
(SEE PAGE 2 FOR MORE INFORMATION)



REPORT NUMBER: PRORATED FROM RAB03692
 ISSUE DATE: 08/29/17
 PREPARED FOR: RAB LIGHTING INC. RC LIGHTING

PAGE: 7 OF 11

CANDELA TABULATION

	STREET SIDE	LATERAL ANGLE								
		0.0	5.0	15.0	25.0	35.0	45.0	55.0	65.0	75.0 85.0
	180.0	2.	2.	2.	2.	2.	2.	2.	2.	2.
	175.0	0.	0.	1.	1.	2.	2.	4.	5.	6.
	165.0	0.	0.	0.	1.	1.	2.	2.	4.	5.
	155.0	0.	1.	1.	1.	1.	1.	2.	2.	4.
	145.0	4.	4.	4.	4.	2.	2.	4.	5.	6.
	135.0	8.	8.	8.	7.	7.	7.	7.	8.	11.
	125.0	17.	17.	15.	15.	15.	15.	17.	17.	18.
	115.0	23.	23.	24.	25.	27.	27.	27.	26.	26.
	105.0	30.	30.	32.	38.	40.	42.	42.	39.	36.
	95.0	42.	43.	53.	64.	71.	74.	72.	66.	57.
	90.0	55.	58.	77.	98.	113.	117.	114.	103.	84.
	87.5	68.	75.	100.	132.	153.	161.	154.	136.	108.
	85.0	91.	98.	128.	178.	222.	241.	222.	186.	139.
V	82.5	128.	138.	174.	251.	328.	370.	334.	266.	191.
E	80.0	193.	206.	248.	350.	463.	551.	487.	381.	278.
R	77.5	289.	308.	352.	472.	633.	723.	668.	521.	402.
T	75.0	428.	442.	489.	606.	757.	869.	806.	649.	534.
I	72.5	546.	561.	592.	675.	837.	977.	897.	734.	640.
C	70.0<<	611.	624.	655.	745.	897.	1000.	927.	792.	719.
A	67.5	689.	707.	744.	811.	898.	942.	893.	819.	779.
L	65.0	764.	779.	808.	829.	836.	812.	796.	795.	799.
	62.5	796.	808.	815.	790.	728.	657.	671.	726.	763.
A	60.0	765.	771.	763.	698.	600.	513.	547.	632.	680.
N	57.5	676.	677.	658.	579.	478.	413.	441.	517.	563.
G	55.0	549.	547.	527.	453.	387.	347.	366.	415.	441.
L	52.5	422.	421.	404.	359.	328.	313.	319.	337.	344.
E	50.0	313.	314.	312.	300.	298.	295.	293.	288.	276.
	47.5	245.	250.	259.	267.	280.	286.	279.	260.	238.
	45.0	211.	218.	231.	249.	268.	276.	268.	243.	218.
	42.5	196.	203.	217.	236.	259.	267.	256.	230.	206.
	40.0	186.	196.	208.	224.	247.	254.	242.	218.	198.
	37.5	183.	190.	200.	216.	232.	238.	227.	206.	191.
	35.0	177.	185.	193.	203.	216.	221.	209.	193.	183.
	30.0	160.	167.	171.	172.	171.	170.	166.	161.	160.
	25.0	127.	133.	133.	128.	123.	117.	120.	123.	127.
	20.0	83.	89.	91.	88.	84.	82.	84.	87.	89.
	15.0	52.	57.	63.	62.	62.	62.	62.	62.	64.
	10.0	32.	34.	40.	43.	46.	47.	46.	44.	42.
	5.0	17.	14.	14.	12.	12.	12.	13.	14.	17.
	0.0	1.	1.	1.	1.	1.	1.	1.	1.	1.

||

PLANE OF MAXIMUM CANDELA

CONE OF MAXIMUM CANDELA

REPORT NUMBER: PRORATED FROM RAB03692
 ISSUE DATE: 08/29/17
 PREPARED FOR: RAB LIGHTING INC. RC LIGHTING

PAGE: 8 OF 11

CANDELA TABULATION

HOUSE SIDE		LATERAL ANGLE									
		90.0	95.0	105.0	115.0	125.0	135.0	145.0	155.0	165.0	175.0
	180.0	2.	2.	2.	2.	2.	2.	2.	2.	2.	2.
	175.0	6.	6.	6.	6.	6.	6.	6.	6.	6.	6.
	165.0	5.	5.	5.	5.	5.	5.	5.	5.	5.	5.
	155.0	4.	5.	4.	4.	4.	4.	4.	4.	4.	4.
	145.0	6.	6.	6.	6.	5.	4.	4.	4.	4.	4.
	135.0	12.	12.	11.	9.	8.	6.	5.	4.	4.	4.
	125.0	19.	19.	19.	17.	14.	12.	8.	6.	5.	4.
	115.0	26.	26.	26.	25.	21.	19.	14.	9.	6.	5.
	105.0	34.	34.	33.	32.	30.	26.	21.	15.	8.	5.
	95.0	47.	47.	47.	47.	45.	44.	39.	30.	18.	6.
	90.0	63.	63.	65.	68.	70.	68.	63.	47.	27.	8.
	87.5	79.	79.	85.	88.	91.	93.	88.	63.	33.	9.
	85.0	107.	104.	113.	120.	133.	135.	125.	82.	38.	11.
V	82.5	149.	147.	162.	179.	202.	202.	173.	102.	44.	13.
E	80.0	228.	224.	248.	273.	301.	285.	223.	120.	46.	14.
R	77.5	347.	343.	370.	395.	412.	368.	268.	129.	47.	15.
T	75.0	484.	479.	498.	506.	502.	434.	295.	130.	47.	15.
I	72.5	600.	594.	604.	599.	576.	478.	295.	125.	47.	18.
C	70.0<<	681.	676.	683.	670.	623.	480.	272.	114.	47.	19.
A	67.5	745.	742.	742.	713.	621.	441.	234.	104.	47.	20.
L	65.0	778.	774.	758.	701.	568.	377.	194.	96.	49.	21.
	62.5	758.	754.	717.	636.	478.	302.	164.	93.	49.	23.
A	60.0	685.	682.	631.	534.	382.	238.	143.	90.	50.	24.
N	57.5	574.	570.	513.	421.	291.	194.	132.	88.	50.	24.
G	55.0	447.	442.	394.	317.	228.	168.	126.	85.	49.	24.
L	52.5	340.	334.	294.	243.	191.	154.	121.	84.	47.	25.
E	50.0	261.	255.	230.	203.	173.	147.	117.	81.	46.	24.
	47.5	217.	211.	197.	183.	164.	142.	113.	78.	45.	25.
	45.0	196.	190.	181.	172.	158.	138.	108.	74.	43.	24.
	42.5	186.	180.	173.	165.	152.	132.	102.	69.	39.	24.
	40.0	179.	173.	167.	160.	147.	126.	96.	63.	37.	23.
	37.5	174.	168.	162.	154.	140.	117.	88.	57.	34.	23.
	35.0	167.	161.	155.	147.	132.	108.	79.	52.	33.	21.
	30.0	149.	143.	136.	126.	107.	85.	60.	43.	30.	20.
	25.0	119.	111.	103.	95.	78.	62.	46.	34.	27.	19.
	20.0	81.	75.	70.	63.	52.	45.	37.	31.	27.	19.
	15.0	53.	47.	45.	42.	38.	34.	31.	27.	26.	15.
	10.0	36.	33.	32.	31.	30.	27.	24.	21.	15.	9.
	5.0	23.	23.	18.	15.	12.	9.	7.	6.	5.	4.
	0.0	1.	1.	1.	1.	1.	1.	1.	1.	1.	1.

CONE OF MAXIMUM CANDELA

REPORT NUMBER: PRORATED FROM RAB03692
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 PREPARED FOR: RAB LIGHTING INC. RC LIGHTING

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CANDELA TABULATION

HOUSE SIDE		LATERAL ANGLE									
		180.0	185.0	195.0	205.0	215.0	225.0	235.0	245.0	255.0	265.0
	180.0	2.	2.	2.	2.	2.	2.	2.	2.	2.	2.
	175.0	6.	6.	5.	4.	4.	2.	2.	1.	1.	0.
	165.0	4.	5.	4.	4.	2.	2.	1.	1.	1.	0.
	155.0	4.	4.	2.	2.	2.	1.	1.	1.	1.	0.
	145.0	4.	4.	2.	2.	2.	1.	1.	1.	1.	1.
	135.0	4.	4.	4.	2.	2.	2.	2.	2.	1.	1.
	125.0	4.	4.	4.	4.	4.	5.	4.	4.	2.	2.
	115.0	5.	5.	5.	5.	6.	6.	6.	5.	4.	2.
	105.0	5.	5.	5.	6.	6.	7.	6.	5.	4.	2.
	95.0	5.	5.	5.	6.	7.	6.	6.	5.	4.	2.
	90.0	5.	5.	5.	6.	6.	6.	5.	5.	4.	2.
	87.5	5.	5.	5.	5.	5.	6.	5.	5.	4.	2.
	85.0	5.	5.	5.	5.	5.	5.	5.	4.	4.	2.
V	82.5	6.	5.	5.	5.	5.	5.	5.	5.	4.	2.
E	80.0	6.	4.	5.	5.	5.	5.	5.	4.	4.	2.
R	77.5	7.	5.	5.	5.	5.	5.	5.	4.	4.	2.
T	75.0	8.	4.	4.	4.	4.	5.	4.	4.	2.	2.
I	72.5	9.	5.	4.	4.	4.	5.	4.	4.	2.	4.
C	70.0<<	9.	5.	4.	4.	4.	4.	4.	4.	2.	4.
A	67.5	12.	5.	4.	4.	4.	5.	4.	4.	4.	2.
L	65.0	12.	6.	4.	4.	4.	4.	4.	4.	2.	2.
	62.5	12.	6.	4.	4.	4.	4.	4.	4.	4.	2.
A	60.0	13.	6.	4.	4.	4.	4.	4.	4.	2.	2.
N	57.5	13.	6.	4.	4.	4.	4.	4.	4.	2.	2.
G	55.0	13.	6.	4.	4.	4.	4.	4.	4.	2.	2.
L	52.5	13.	6.	4.	4.	4.	4.	4.	4.	2.	4.
E	50.0	13.	6.	4.	4.	4.	4.	4.	4.	4.	2.
	47.5	13.	7.	5.	4.	4.	4.	4.	4.	4.	4.
	45.0	13.	7.	4.	4.	4.	4.	4.	4.	4.	4.
	42.5	13.	7.	4.	4.	4.	4.	4.	4.	4.	4.
	40.0	13.	7.	4.	4.	4.	4.	4.	4.	2.	4.
	37.5	12.	6.	4.	4.	4.	4.	4.	2.	2.	2.
	35.0	13.	7.	4.	4.	4.	4.	4.	2.	2.	4.
	30.0	12.	7.	4.	4.	4.	4.	4.	4.	2.	4.
	25.0	12.	6.	4.	4.	4.	4.	2.	2.	2.	2.
	20.0	12.	6.	4.	4.	4.	4.	2.	2.	4.	4.
	15.0	9.	6.	4.	4.	4.	2.	2.	2.	2.	2.
	10.0	6.	5.	4.	2.	2.	2.	2.	2.	2.	2.
	5.0	4.	2.	2.	1.	1.	1.	1.	1.	1.	1.
	0.0	1.	1.	1.	1.	1.	1.	1.	1.	1.	1.

CONE OF MAXIMUM CANDELA

REPORT NUMBER: PRORATED FROM RAB03692
 ISSUE DATE: 08/29/17
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CANDELA TABULATION

STREET SIDE		LATERAL ANGLE										
		270.0	275.0	285.0	295.0	305.0	315.0	325.0	335.0	345.0	355.0	360.0
	180.0	2.	2.	2.	2.	2.	2.	2.	2.	2.	2.	2.
	175.0	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
	165.0	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
	155.0	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
	145.0	1.	1.	0.	0.	0.	0.	1.	2.	2.	4.	4.
	135.0	1.	1.	1.	1.	1.	4.	5.	6.	7.	8.	8.
	125.0	2.	2.	1.	2.	6.	8.	11.	14.	15.	17.	17.
	115.0	2.	2.	2.	6.	11.	15.	19.	21.	23.	23.	23.
	105.0	2.	2.	6.	13.	18.	23.	26.	28.	30.	30.	30.
	95.0	4.	5.	14.	26.	33.	39.	40.	42.	42.	42.	42.
	90.0	2.	6.	23.	42.	53.	59.	62.	59.	56.	55.	55.
	87.5	2.	8.	28.	56.	74.	81.	78.	78.	74.	71.	68.
	85.0	4.	9.	36.	74.	106.	117.	111.	106.	96.	93.	91.
V	82.5	5.	12.	43.	96.	149.	176.	167.	157.	138.	130.	128.
E	80.0	5.	13.	47.	119.	199.	259.	249.	235.	208.	197.	193.
R	77.5	6.	14.	51.	135.	254.	345.	366.	344.	310.	296.	289.
T	75.0	7.	15.	51.	143.	301.	423.	461.	466.	444.	430.	428.
I	72.5	8.	17.	50.	141.	321.	490.	543.	548.	544.	548.	546.
C	70.0<<	9.	18.	50.	130.	313.	518.	620.	632.	615.	614.	611.
A	67.5	11.	20.	50.	119.	281.	502.	657.	706.	701.	694.	689.
L	65.0	11.	20.	50.	107.	236.	442.	639.	734.	761.	761.	764.
	62.5	12.	23.	50.	100.	194.	364.	568.	702.	772.	786.	796.
A	60.0	13.	24.	50.	95.	165.	286.	466.	620.	722.	751.	765.
N	57.5	13.	24.	51.	93.	146.	225.	364.	502.	618.	656.	676.
G	55.0	13.	24.	50.	90.	135.	187.	276.	384.	485.	527.	549.
L	52.5	13.	24.	49.	88.	128.	167.	219.	288.	364.	402.	422.
E	50.0	13.	24.	47.	84.	123.	157.	189.	231.	273.	298.	313.
	47.5	13.	24.	45.	81.	120.	149.	173.	196.	219.	234.	245.
	45.0	13.	23.	43.	77.	115.	143.	165.	180.	193.	204.	211.
	42.5	13.	23.	40.	71.	109.	139.	160.	173.	181.	189.	196.
	40.0	13.	21.	37.	65.	101.	132.	154.	167.	174.	180.	186.
	37.5	12.	20.	34.	58.	93.	125.	148.	161.	170.	174.	183.
	35.0	13.	20.	32.	52.	83.	115.	140.	154.	164.	170.	177.
	30.0	12.	19.	27.	42.	63.	89.	115.	134.	146.	153.	160.
	25.0	12.	18.	25.	32.	45.	60.	82.	98.	111.	117.	127.
	20.0	12.	18.	23.	27.	33.	42.	52.	60.	70.	75.	83.
	15.0	11.	14.	21.	24.	26.	30.	34.	38.	42.	45.	52.
	10.0	6.	7.	12.	15.	19.	23.	26.	27.	28.	30.	32.
	5.0	1.	1.	2.	4.	5.	5.	7.	8.	12.	13.	17.
	0.0	1.	1.	1.	1.	1.	1.	1.	1.	1.	1.	1.

CONE OF MAXIMUM CANDELA

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5-DEGREE ZONAL LUMEN SUMMARY

0- 5	0
5- 10	1
10- 15	3
15- 20	6
20- 25	12
25- 30	19
30- 35	28
35- 40	36
40- 45	44
45- 50	54
50- 55	79
55- 60	128
60- 65	181
65- 70	205
70- 75	187
75- 80	132
80- 85	70
85- 90	36
90- 95	22
95-100	16
100-105	12
105-110	10
110-115	8
115-120	7
120-125	5
125-130	4
130-135	3
135-140	2
140-145	1
145-150	1
150-155	0
155-160	0
160-165	0
165-170	0
170-175	0
175-180	0

10-DEGREE ZONAL LUMEN SUMMARY

0- 10	1
0- 20	11
0- 30	41
0- 40	105
0- 50	203
0- 60	410
0- 70	795
0- 80	1115
0- 90	1222
0-100	1260
0-110	1282
0-120	1297
0-130	1307
0-140	1311
0-150	1313
0-160	1314
0-170	1314
0-180	1315