

REPORT NUMBER: SCALED FROM RAB00963

ISSUE DATE: 07/23/15

PREPARED FOR: RAB LIGHTING INC.

CATALOG NUMBER: SHARK4-36W/480 (STANDARD DISTRIBUTION)

LUMINAIRE: FABRICATED WHITE PLASTIC HOUSING, PERFORATED WHITE METAL HEAT SINK, 2 WHITE CIRCUIT BOARDS EACH WITH 64 LEDS, FROSTED POLYCARBONATE LENS ENCLOSURE.

LAMPS: ONE HUNDRED AND TWENTY EIGHT WHITE EMITTING DIODES (LEDs), TILTED 15-DEGREE FROM VERTICAL BASE-UP POSITION.

TOTAL INPUT WATTS = 36.752 AT 480.0 VOLTS

LED DRIVERS: RD-LT40-A0700-60PF

\*(SEE PAGE 2 FOR MORE INFORMATION)\*

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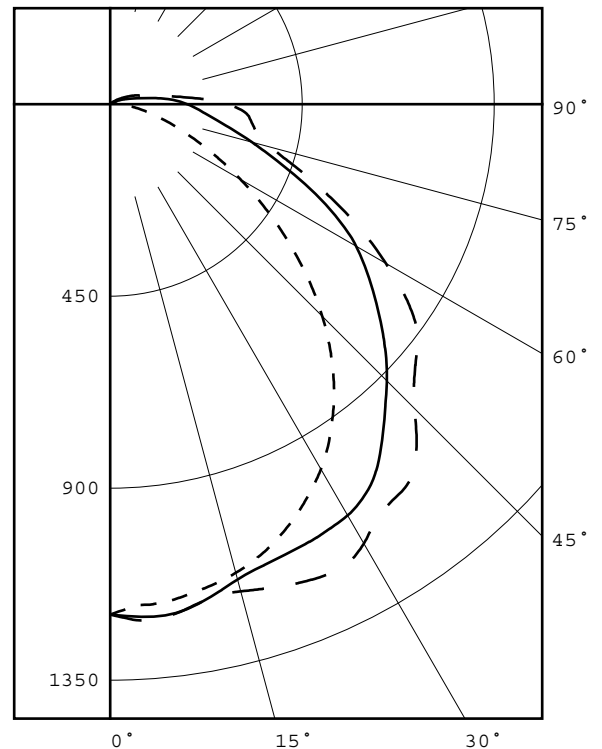
DATE SAMPLE TESTED: 07/23/15

### CANDELA DISTRIBUTION

	0.0	22.5	45.0	67.5	90.0
0	1196	1196	1196	1196	1196
5	1176	1185	1205	1212	1212
15	1137	1146	1153	1172	1182
25	1051	1050	1127	1194	1215
35	908	943	1075	1115	1142
45	704	795	918	1002	1009
55	464	573	750	850	869
65	255	361	559	606	615
75	118	195	344	386	392
85	43	99	220	299	326
90	23	70	182	254	272
95	14	50	136	174	182
105	10	16	52	73	77
115	7	7	19	36	41
125	4	5	5	10	14
135	3	4	4	4	5
145	3	3	3	3	4
155	3	3	3	3	3
165	3	3	3	2	3
175	4	3	3	2	2
180	3	3	3	3	3

### FLUX

114
328
519
651
689
632
486
317
219
126
51
22
7
3
2
1
1
0



#### LEGEND:

0-deg: - - - - -  
 45-deg: ————  
 90-deg: ————

### ZONAL LUMEN SUMMARY

ZONE	LUMENS	%FIXT
0- 30	961	23.1
0- 40	1613	38.7
0- 60	2934	70.4
0- 90	3955	94.9
90-120	199	4.8
90-130	206	4.9
90-150	211	5.1
90-180	213	5.1
0-180	4168	100.0

TOTAL INPUT WATTS = 36.752

EFFICACY = 113.4 Lm/W

CIE TYPE - DIRECT

PLANE : 0-DEG 90-DEG

SPACING CRITERIA : 1.2 1.5

Checked X.CAO  
 Approved D.WANG-MUNSON

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ADDITIONAL INFORMATION

NOTE: DATA SHOWN IS ABSOLUTE FOR THE SAMPLE PROVIDED AT RATED INPUT  
VOLTAGE TO THE LED DRIVERS.  
TEST PROCEDURE: IESNA LM-79-08  
TEST DISTANCE = 28.25 FEET  
ACCREDITED LABORATORY CODE 201058-0

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PLANE : 0-DEG 90-DEG  
BEAM ANGLE (50%) : 98.1 X 130.6 DEGREES  
FIELD ANGLE (10%) : 149.4 X 198.2 DEGREES

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### CANDELA DISTRIBUTION

	0.0	22.5	45.0	67.5	90.0
0.0	1196	1196	1196	1196	1196
5.0	1176	1185	1205	1212	1212
10.0	1160	1175	1189	1188	1188
15.0	1137	1146	1153	1172	1182
20.0	1102	1103	1135	1185	1201
25.0	1051	1050	1127	1194	1215
30.0	988	997	1114	1178	1189
35.0	908	943	1075	1115	1142
40.0	812	878	996	1080	1111
45.0	704	795	918	1002	1009
50.0	585	690	834	914	936
55.0	464	573	750	850	869
60.0	354	461	666	738	747
65.0	255	361	559	606	615
70.0	177	270	440	482	489
75.0	118	195	344	386	392
80.0	76	139	270	326	345
85.0	43	99	220	299	326
90.0	23	70	182	254	272
95.0	14	50	136	174	182
100.0	12	30	83	105	109
105.0	10	16	52	73	77
110.0	8	9	33	54	60
115.0	7	7	19	36	41
120.0	5	5	9	21	26
125.0	4	5	5	10	14
130.0	4	4	4	5	5
135.0	3	4	4	4	5
140.0	3	3	4	4	4
145.0	3	3	3	3	4
150.0	3	3	3	3	3
155.0	3	3	3	3	3
160.0	3	3	3	3	3
165.0	3	3	3	2	3
170.0	4	3	3	2	2
175.0	4	3	3	2	2
180.0	3	3	3	3	3

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ZONAL LUMEN SUMMARY

0- 5	29.
5- 10	85.
10- 15	139.
15- 20	190.
20- 25	238.
25- 30	281.
30- 35	314.
35- 40	337.
40- 45	347.
45- 50	342.
50- 55	328.
55- 60	304.
60- 65	266.
65- 70	220.
70- 75	176.
75- 80	141.
80- 85	118.
85- 90	100.
90- 95	77.
95-100	50.
100-105	30.
105-110	20.
110-115	14.
115-120	8.
120-125	5.
125-130	2.
130-135	2.
135-140	1.
140-145	1.
145-150	1.
150-155	1.
155-160	1.
160-165	0.
165-170	0.
170-175	0.
175-180	0.

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5-DEGREE  
ZONAL LUMEN SUMMARY

0- 5	29
5- 10	85
10- 15	139
15- 20	190
20- 25	238
25- 30	281
30- 35	314
35- 40	337
40- 45	347
45- 50	342
50- 55	328
55- 60	304
60- 65	266
65- 70	220
70- 75	176
75- 80	141
80- 85	118
85- 90	100
90- 95	77
95-100	50
100-105	30
105-110	20
110-115	14
115-120	8
120-125	5
125-130	2
130-135	2
135-140	1
140-145	1
145-150	1
150-155	1
155-160	1
160-165	0
165-170	0
170-175	0
175-180	0

10-DEGREE  
ZONAL LUMEN SUMMARY

0- 10	114
0- 20	442
0- 30	961
0- 40	1613
0- 50	2301
0- 60	2934
0- 70	3420
0- 80	3737
0- 90	3955
0-100	4081
0-110	4132
0-120	4154
0-130	4161
0-140	4164
0-150	4166
0-160	4167
0-170	4168
0-180	4168

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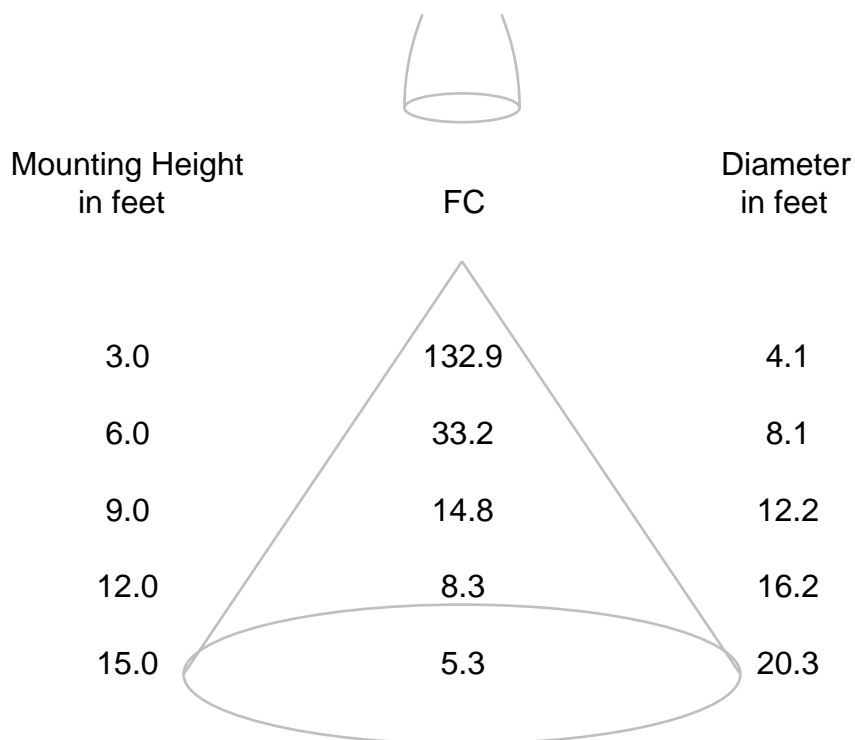
## COEFFICIENTS OF UTILIZATION - ZONAL CAVITY METHOD

EFFECTIVE FLOOR CAVITY REFLECTANCE 0.20

RC	80				70				50			30			10			0
RW	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10	0
0	118	118	118	118	114	114	114	114	108	108	108	103	103	103	97	97	97	95
1	106	101	96	91	103	98	93	89	93	89	86	88	85	82	83	81	79	76
2	96	87	80	73	93	85	78	72	80	75	70	76	71	67	72	68	65	62
3	87	76	67	61	84	74	66	60	70	63	58	67	61	56	64	59	55	52
4	80	67	58	51	77	65	57	50	62	55	49	59	53	48	56	51	47	44
5	73	60	50	44	71	58	50	43	56	48	42	53	46	41	51	45	40	38
6	67	54	44	38	65	52	44	37	50	42	37	48	41	36	46	40	35	33
7	62	48	40	33	60	47	39	33	45	38	32	43	37	32	42	36	31	29
8	58	44	35	29	56	43	35	29	41	34	29	40	33	28	38	32	28	26
9	54	40	32	26	52	40	32	26	38	31	26	37	30	25	35	29	25	23
10	51	37	29	24	49	37	29	24	35	28	23	34	27	23	33	27	23	21

ALL CANDELA, LUMENS, LUMINANCE, AND VCP VALUES 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.

(diameter shown is where  $f_c$  value is half the  $f_c$  at nadir)



Note: The candela values used to generate this diagram were obtained by averaging the photometric data into a single plane.