

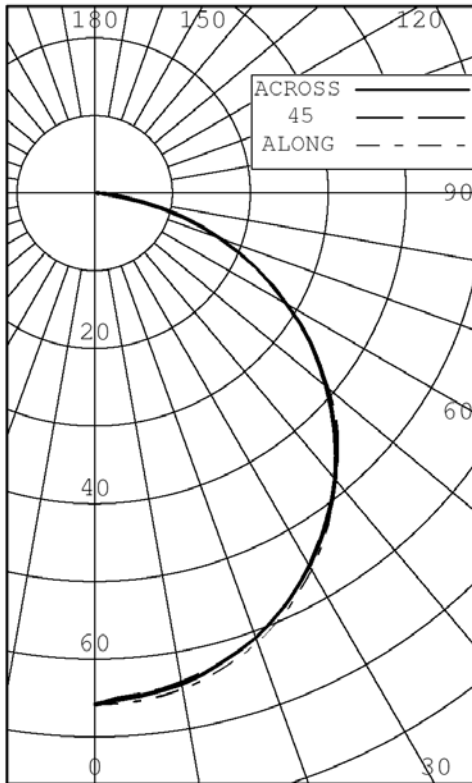


INDEPENDENT TEST LABORATORY REPORT No. 27485

LEDPAC LED LIGHTING - LED STRIP
WITH WHITE CIRCUIT BOARD AND NO LENS
THREE LEDS. LUMINAIRE OUTPUT = 185 LMS.
LAMP OPERATING AT 12.0 VDC AND 3.5 WATTS

INTENSITY (CANDLEPOWER) SUMMARY OUTPUT LUMENS

ANGLE	ALONG	22.5	45	67.5	ACROSS	OUTPUT LUMENS
0	66	66	66	66	66	
5	66	66	65	66	65	6
10	65	65	64	65	64	
15	63	63	63	64	63	18
20	61	61	61	62	61	
25	59	59	58	59	58	27
30	56	56	55	56	55	
35	52	52	52	52	52	32
40	48	48	48	48	48	
45	44	44	44	44	44	34
50	39	39	39	39	39	
55	34	34	34	34	34	30
60	29	28	29	29	28	
65	23	23	23	23	23	23
70	17	17	18	17	17	
75	11	12	12	12	12	12
80	5	6	6	6	6	
85	2	2	2	2	2	3
90	0	0	0	0	0	

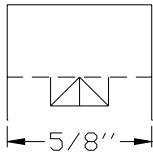


ZONAL LUMENS AND PERCENTAGES

ZONE	LUMENS	% LUMINAIRE
0-30	51	27.60
0-40	84	45.13
0-60	148	79.76
0-90	185	100.00
40-90	102	54.87
60-90	37	20.24
90-180	0	0.00
0-180	185	100.00

EFFICACY (LUMENS PER WATT) : 52.9

*** THIS IS AN ABSOLUTE TEST ***



S/MH: 1.2

SC (ALONG) : 1.3, SC (ACROSS) : 1.2
CERTIFIED BY:

James E. Walker III

DATE:
AUG 31, 2010

PREPARED FOR:
LEDPAC LED LIGHTING SOLUTIONS
ESCONDIDO, CA

TESTED IN ACCORDANCE WITH IES PROCEDURES.

LIGHTING SCIENCES, INC.
 7826 E. EVANS RD.
 SCOTTSDALE, AZ, USA 85260

INDEPENDENT TEST LABORATORY REPORT No. 27485

LEDPAC LED LIGHTING - LED STRIP
 WITH WHITE CIRCUIT BOARD AND NO LENS
 THREE LEDS. LUMINAIRE OUTPUT = 185 LMS.
 LAMP OPERATING AT 12.0 VDC AND 3.5 WATTS

INTENSITY (CANDLEPOWER) DATA
 IN 2.5 DEGREE STEPS

ANGLE	PLANE						OUTPUT LUMENS
	ALONG	22.5	45	67.5	ACROSS	AVERAGE	
0.0	66	66	66	66	66	66	
2.5	66	66	65	67	65	66	
5.0	66	66	65	66	65	66	6
7.5	65	66	64	66	65	65	
10.0	65	65	64	65	64	65	
12.5	64	64	63	65	64	64	
15.0	63	63	63	64	63	63	18
17.5	62	62	62	63	62	62	
20.0	61	61	61	62	61	61	
22.5	60	60	60	60	60	60	
25.0	59	59	58	59	58	59	27
27.5	57	57	57	57	57	57	
30.0	56	56	55	56	55	56	
32.5	54	54	53	54	54	54	
35.0	52	52	52	52	52	52	32
37.5	50	50	50	50	50	50	
40.0	48	48	48	48	48	48	
42.5	46	46	46	46	46	46	
45.0	44	44	44	44	44	44	34
47.5	41	41	42	42	41	42	
50.0	39	39	39	39	39	39	
52.5	36	36	37	37	36	37	
55.0	34	34	34	34	34	34	30
57.5	31	31	31	32	31	31	
60.0	29	28	29	29	28	29	
62.5	26	26	26	26	26	26	
65.0	23	23	23	23	23	23	23
67.5	20	20	20	20	20	20	
70.0	17	17	18	17	17	17	
72.5	15	15	14	14	14	14	
75.0	11	12	12	12	12	12	12
77.5	8	9	9	9	9	9	
80.0	5	6	6	6	6	6	
82.5	3	3	4	3	3	3	
85.0	2	2	2	2	2	2	3
87.5	1	1	1	1	1	1	
90.0	0	0	0	0	0	0	

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COEFFICIENTS OF UTILIZATION

ZONAL CAVITY METHOD

EFFECTIVE FLOOR CAVITY REFLECTANCE = .20

CC WALL	90				80				70				50				30				10				0	
	70	50	30	10	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10	50	30	10	0	
RCR																										
0	1.221	1.221	1.221	1.22	1.191	1.191	1.191	1.19	1.161	1.161	1.161	1.16	1.111	1.111	1.111	1.11	1.061	1.061	1.061	1.06	1.021	1.021	1.021	1.02	1.00	
1	1.121	1.071	1.030	0.99	1.101	1.051	1.010	0.98	1.071	1.030	0.990	0.96	0.990	0.960	0.93	0.950	0.920	0.90	0.910	0.890	0.87	0.86				
2	1.030	0.950	0.890	0.82	1.010	0.930	0.870	0.81	0.980	0.910	0.850	0.81	0.880	0.830	0.79	0.850	0.810	0.77	0.820	0.780	0.75	0.73				
3	0.940	0.840	0.760	0.69	0.920	0.820	0.750	0.69	0.900	0.810	0.740	0.68	0.780	0.720	0.67	0.750	0.700	0.66	0.730	0.680	0.65	0.63				
4	0.870	0.750	0.660	0.60	0.850	0.740	0.660	0.59	0.830	0.720	0.650	0.59	0.700	0.630	0.58	0.680	0.620	0.57	0.660	0.610	0.56	0.54				
5	0.800	0.670	0.580	0.51	0.780	0.660	0.570	0.51	0.760	0.650	0.570	0.51	0.630	0.550	0.50	0.610	0.540	0.50	0.590	0.540	0.49	0.47				
6	0.740	0.600	0.510	0.45	0.720	0.590	0.500	0.44	0.700	0.580	0.500	0.44	0.560	0.490	0.44	0.550	0.480	0.43	0.530	0.470	0.43	0.41				
7	0.680	0.540	0.450	0.39	0.660	0.530	0.440	0.39	0.650	0.520	0.440	0.38	0.500	0.430	0.38	0.490	0.420	0.37	0.480	0.420	0.37	0.35				
8	0.630	0.490	0.400	0.34	0.610	0.480	0.400	0.34	0.600	0.470	0.390	0.34	0.460	0.390	0.33	0.450	0.380	0.33	0.430	0.370	0.33	0.31				
9	0.580	0.440	0.360	0.30	0.570	0.440	0.350	0.30	0.550	0.430	0.350	0.30	0.420	0.350	0.29	0.410	0.340	0.29	0.400	0.340	0.29	0.27				
10	0.540	0.400	0.320	0.26	0.530	0.400	0.320	0.26	0.520	0.390	0.320	0.26	0.380	0.310	0.26	0.370	0.300	0.26	0.360	0.300	0.26	0.24				

THE ABOVE COEFFICIENTS HAVE BEEN CALCULATED BASED ON LUMINAIRE LUMENS
 BECAUSE IN AN ABSOLUTE TEST THE BARE LAMP LUMENS ARE UNKNOWN.
 LIGHTING DESIGN CALCULATIONS MADE USING THESE COEFFICIENTS SHOULD
 THEREFORE USE THE LUMINAIRE LUMENS IN THE CALCULATION FORMULA

LUMINAIRE INPUT WATTS 3.5

LABORATORY RESULTS MAY NOT BE REPRESENTATIVE OF FIELD PERFORMANCE.
 BALLAST AND FIELD FACTORS HAVE NOT BEEN APPLIED.

TEST DISTANCE EXCEEDS FIVE TIMES THE GREATEST
 LUMINOUS OPENING OF LUMINAIRE.