

Scaled data based on original data using
LM-79-08 Approved Method: Electrical and Photometric Measurements of Solid-State
Lighting Products

Test Report Prepared for

Cooper Lighting Solutions

(formerly Eaton)

Brand: METALUX

Report Number: P474937

Luminaire Tested: **22CZ2-32-S-UNV-L840-CD1-U**

Issue Date: 02/10/2021

Test Information

Test Method: LM-79-08
Report Number: P474937
Test Lab: INNOVATION CENTER(G3)
Issue Date: 02/10/2021
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: 22CZ2-32-S-UNV-L840-CD1-U
Description: 2'X2' TROFFER LED MODULE, SMOOTH LENS
Light Source: 4000K CCT, 80 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

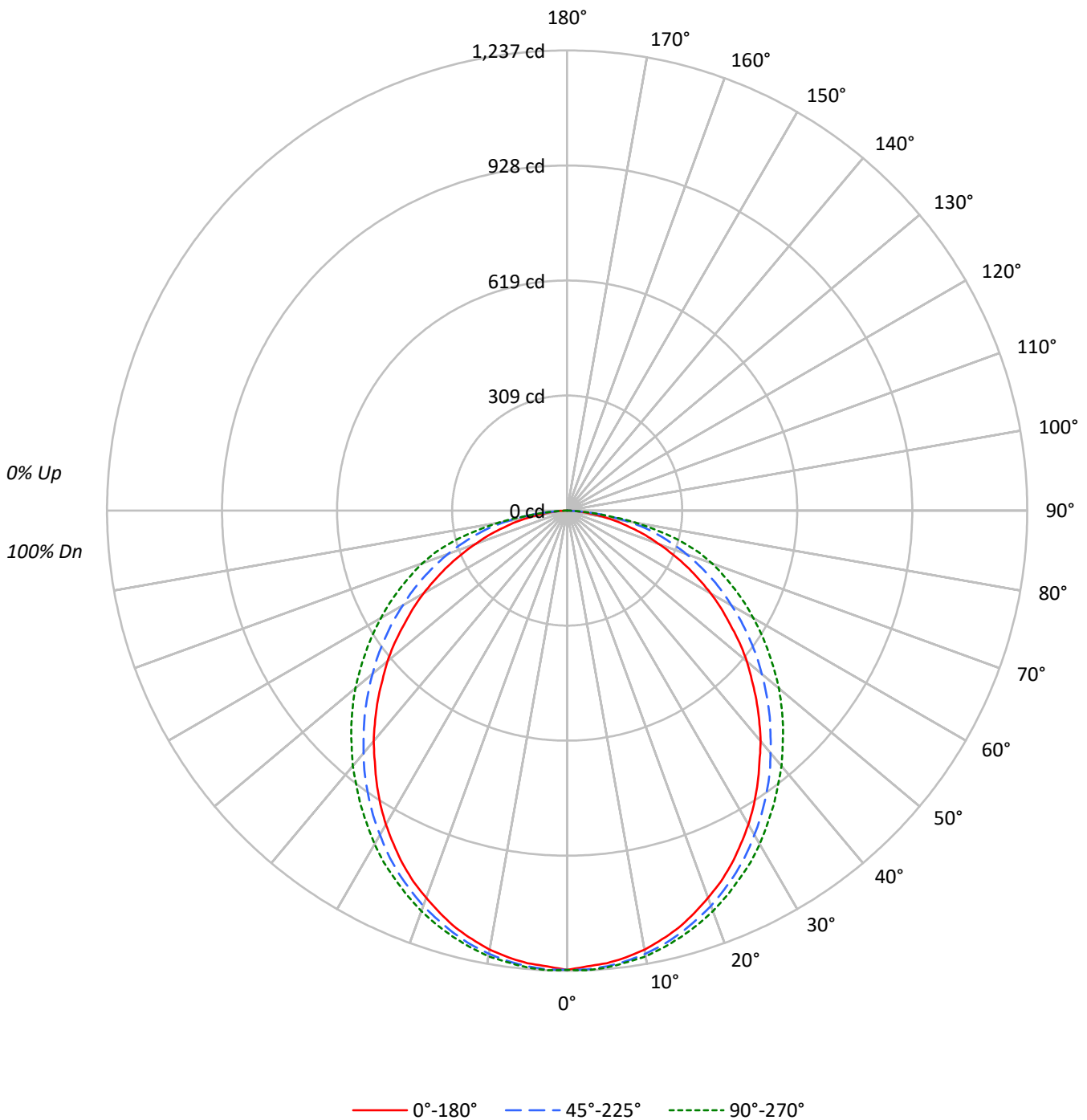
Lumens per Lamp: N/A
Luminaire Lumens: 3401.0 lumens
Efficiency: N/A
Efficacy: 140.5 lumens/watt
Spacing Criteria (0/90/45): 1.18 / 1.25 / 1.33
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

Input Watts (W): 24.2
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Luminous Intensity Polar Plot





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COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:

RF	20					20					20					20					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	50	30	10	50	30	10	0		
RCR																										
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100					100			
1	109	104	99	95	106	101	97	94	97	94	91	93	91	88	90	88	86	83					83			
2	99	90	83	77	96	88	82	77	85	79	75	81	77	73	78	75	71	69					69			
3	90	79	71	64	87	78	70	64	75	68	63	72	66	61	69	64	60	58					58			
4	82	70	61	54	80	69	60	54	66	59	53	64	58	53	62	56	52	50					50			
5	76	63	54	47	74	62	53	47	59	52	46	57	51	46	56	50	45	43					43			
6	70	56	47	41	68	55	47	41	54	46	40	52	45	40	50	44	40	38					38			
7	65	51	42	36	63	50	42	36	49	41	36	47	41	36	46	40	35	33					33			
8	60	47	38	32	59	46	38	32	45	37	32	43	37	32	42	36	32	30					30			
9	56	43	35	29	55	42	34	29	41	34	29	40	33	29	39	33	29	27					27			
10	53	40	32	26	52	39	32	26	38	31	26	37	31	26	36	30	26	24					24			

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	3322	3322	3322
5°	3299	3321	3330
10°	3275	3306	3324
15°	3233	3277	3304
20°	3172	3239	3281
25°	3108	3189	3248
30°	3028	3128	3217
35°	2934	3063	3177
40°	2842	2989	3149
45°	2737	2925	3123
50°	2640	2860	3111
55°	2514	2803	3097
60°	2401	2746	3110
65°	2253	2714	3155
70°	2059	2681	3257
75°	1849	2662	3261
80°	1556	2512	2895
85°	1170	1701	1575



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	116.6	3.4
10°-20°	331.2	9.7
20°-30°	493.7	14.5
30°-40°	582.6	17.1
40°-50°	593.6	17.5
50°-60°	535.3	15.7
60°-70°	420.4	12.4
70°-80°	262.8	7.7
80°-90°	64.8	1.9
90°-100°	0.0	0.0
100°-110°	0.0	0.0
110°-120°	0.0	0.0
120°-130°	0.0	0.0
130°-140°	0.0	0.0
140°-150°	0.0	0.0
150°-160°	0.0	0.0
160°-170°	0.0	0.0
170°-180°	0.0	0.0
0°-30°	941.5	27.7
0°-40°	1524.1	44.8
0°-60°	2653.0	78.0
0°-90°	3401.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3401.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1235	1235	1235	1235	1235	
5°	1221	1224	1230	1232	1233	116
15°	1160	1165	1176	1184	1186	327
25°	1047	1053	1074	1090	1094	482
35°	893	905	932	958	967	558
45°	719	732	769	806	821	555
55°	536	553	598	644	660	481
65°	354	373	426	474	496	350
75°	178	202	256	300	314	190
85°	38	49	55	54	51	46
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1234.6	1234.6	1234.6	1234.6	1234.6
2.5°	1226.3	1228.8	1234.6	1237.0	1237.0
5°	1221.4	1223.9	1229.6	1232.1	1232.9
7.5°	1211.5	1214.8	1221.4	1224.7	1224.7
10°	1198.4	1202.5	1209.9	1214.8	1216.5
12.5°	1180.3	1185.2	1195.1	1200.8	1202.5
15°	1160.5	1164.6	1176.1	1184.4	1186.0
17.5°	1135.0	1141.6	1153.9	1164.6	1167.1
20°	1107.8	1115.2	1130.9	1143.2	1145.7
22.5°	1079.8	1085.6	1102.9	1117.7	1121.0
25°	1046.9	1052.7	1074.1	1089.7	1093.8
27.5°	1010.7	1020.6	1042.0	1060.1	1066.7
30°	974.5	984.4	1006.6	1028.0	1035.4
32.5°	935.0	945.7	971.2	993.4	1000.8
35°	893.0	905.4	932.5	958.0	967.1
37.5°	849.4	863.4	893.8	921.0	930.9
40°	809.1	818.9	851.0	882.3	896.3
42.5°	763.8	777.0	809.1	844.5	857.6
45°	719.3	731.7	768.7	805.8	820.6
47.5°	673.3	688.9	725.9	767.1	781.9
50°	630.5	643.6	683.1	726.8	743.2
52.5°	584.4	598.4	641.2	686.4	701.2
55°	535.8	553.1	597.5	643.6	660.1
57.5°	491.4	507.8	554.7	602.5	619.8
60°	446.1	462.6	510.3	558.9	577.8
62.5°	398.4	417.3	469.1	516.1	537.5
65°	353.9	372.8	426.3	474.1	495.5
67.5°	307.0	329.2	382.7	432.9	454.3
70°	261.7	288.1	340.7	390.1	414.0
72.5°	221.4	242.8	297.9	349.8	369.6
75°	177.8	202.5	256.0	299.6	313.6
77.5°	140.7	162.1	213.2	242.0	251.0
80°	100.4	124.3	162.1	179.4	186.8
82.5°	66.7	86.4	110.3	113.6	111.9
85°	37.9	48.6	55.1	54.3	51.0
87.5°	14.8	16.5	12.3	7.4	5.8
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)