

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: P276598

Luminaire Tested: **24CZ2-30HE-S-UNV-L92765-W2A1-U-3000K**

Issue Date: 3/3/2020

This test was performed under the Supervised Manufacturer's Testing Program. The results of this test have not been influenced by sources from within Cooper Lighting Solutions or from external interests.

Test Information

Test Method: LM-79-08
Report Number: P276598
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1805-783-1)
Test Lab: INNOVATION CENTER(G3)
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: 24CZ2-30HE-S-UNV-L92765-W2A1-U-3000K
Description: CRUZE 2.0 2x4 TUNABLE WHITE LED TROFFER WITH SMOOTH LENS
Light Source: (336) 90 CRI LEDS TUNED TO 3000K CCT
Ballast/Driver: ELECTRONIC DRIVER
Luminaire Equipment: Sample No. Condition Description

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 2487.0 lumens
Efficiency: N/A
Efficacy: 127.9 lumens/watt
Spacing Criteria (0/90/45): 1.2 / 1.26 / 1.35
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')
CIE Type: Direct

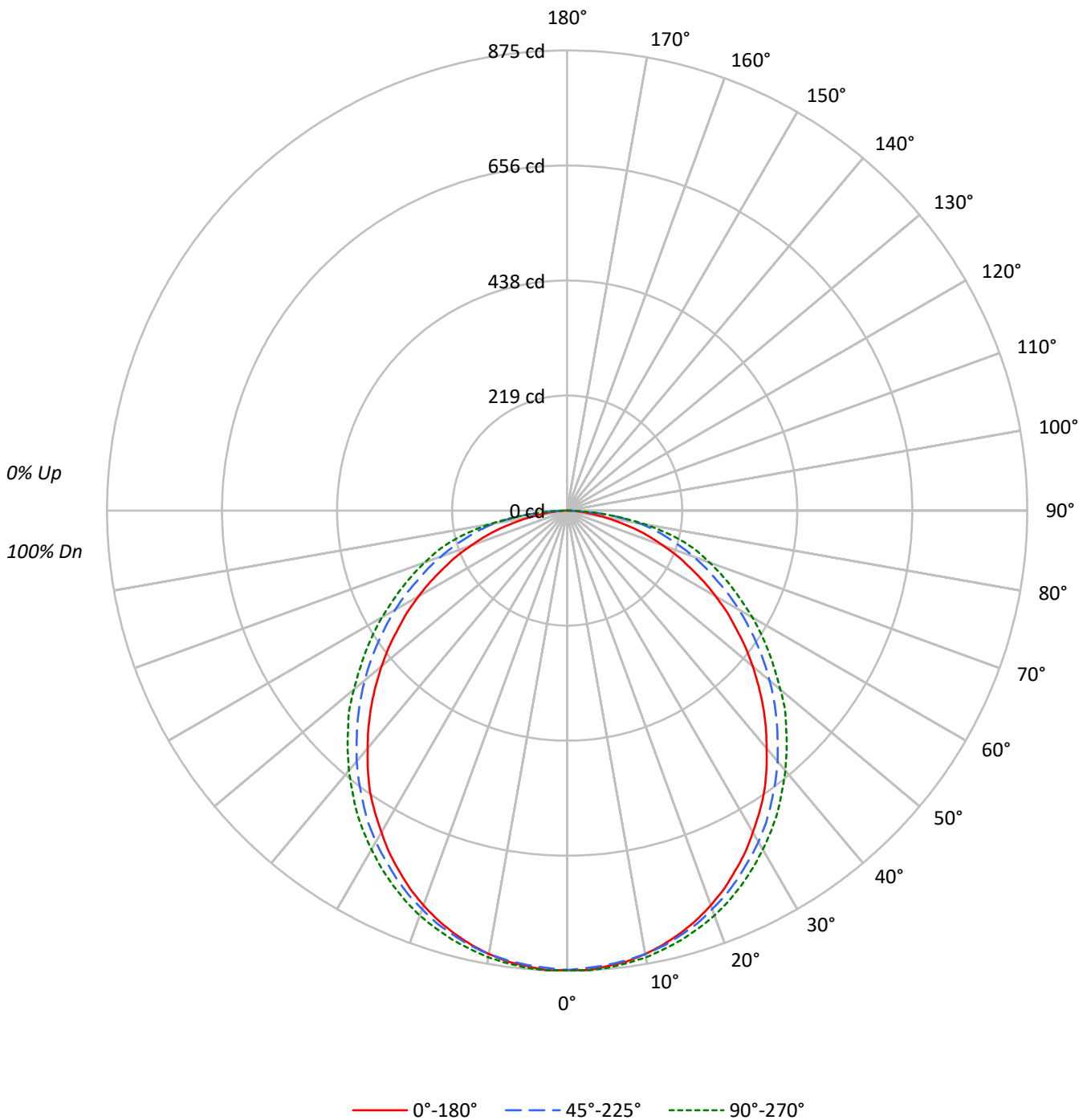
Input Watts (W): 19.437
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	0
RCR																		
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100
1	108	103	99	95	106	101	97	93	97	93	90	93	90	88	89	87	85	83
2	98	90	83	77	96	88	81	76	84	79	74	81	76	72	78	74	71	69
3	89	79	70	64	87	77	69	63	74	67	62	71	66	61	69	64	60	58
4	82	70	61	54	80	68	60	54	66	59	53	63	57	52	61	56	51	49
5	75	62	53	46	73	61	53	46	59	51	46	57	50	45	55	49	45	42
6	70	56	47	40	68	55	47	40	53	46	40	52	45	40	50	44	39	37
7	64	51	42	36	63	50	42	36	48	41	35	47	40	35	46	39	35	33
8	60	46	38	32	58	46	37	32	44	37	32	43	36	31	42	36	31	29
9	56	43	34	29	55	42	34	29	41	34	28	40	33	28	39	33	28	26
10	53	39	31	26	51	39	31	26	38	31	26	37	30	26	36	30	26	24

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	1176	1176	1176
5°	1175	1172	1179
10°	1170	1170	1179
15°	1159	1164	1176
20°	1143	1155	1173
25°	1122	1143	1166
30°	1097	1130	1156
35°	1073	1112	1147
40°	1036	1093	1134
45°	1003	1072	1121
50°	964	1052	1108
55°	921	1032	1097
60°	878	1016	1095
65°	822	998	1102
70°	761	1004	1131
75°	682	1023	1195
80°	551	1083	1169
85°	415	951	926



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	82.7	3.3
10°-20°	236.3	9.5
20°-30°	355.3	14.3
30°-40°	423.2	17.0
40°-50°	433.1	17.4
50°-60°	389.9	15.7
60°-70°	306.2	12.3
70°-80°	198.7	8.0
80°-90°	61.5	2.5
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°	674.3	27.1
0°-40°	1097.5	44.1
0°-60°	1920.5	77.2
0°-90°	2487.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2487.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	874	874	874	874	874	
5°	870	871	867	872	873	83
15°	832	834	836	843	844	235
25°	756	762	770	783	785	348
35°	653	661	677	694	698	408
45°	527	540	563	585	589	406
55°	393	410	440	463	468	352
65°	258	278	314	340	346	257
75°	131	156	197	224	230	139
85°	27	50	62	60	60	32
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	873.7	873.7	873.7	873.7	873.7
2.5°	874.5	874.5	870.5	874.5	875.3
5°	869.7	871.3	867.4	872.1	872.9
7.5°	865.0	865.0	862.6	867.4	868.2
10°	856.3	857.1	856.3	861.8	862.6
12.5°	845.3	846.8	847.6	853.2	853.9
15°	831.8	834.2	835.8	842.9	844.5
17.5°	816.8	819.2	823.1	831.0	832.6
20°	798.6	801.8	806.5	816.8	819.2
22.5°	778.9	782.1	790.0	799.4	803.4
25°	756.0	762.3	770.2	782.8	785.2
27.5°	733.1	738.6	748.9	762.3	765.5
30°	706.2	714.9	727.5	741.0	744.1
32.5°	680.2	688.8	703.8	718.1	722.0
35°	653.3	661.2	677.0	693.6	698.3
37.5°	622.5	632.8	650.1	666.7	671.5
40°	590.1	602.7	622.5	639.9	645.4
42.5°	559.3	572.7	592.5	611.4	617.7
45°	526.9	539.5	563.2	584.6	589.3
47.5°	493.7	507.9	533.2	554.5	562.4
50°	460.5	475.6	502.4	524.5	529.3
52.5°	427.4	443.2	471.6	495.3	497.7
55°	392.6	410.0	440.0	462.9	467.7
57.5°	361.0	376.0	408.4	432.1	437.6
60°	326.3	342.8	377.6	399.7	406.8
62.5°	293.1	310.5	346.8	368.9	375.2
65°	258.3	278.1	313.6	339.7	346.0
67.5°	228.3	247.3	285.2	310.5	316.8
70°	193.5	214.9	255.2	281.2	287.5
72.5°	163.5	185.6	225.9	251.2	260.7
75°	131.1	156.4	196.7	223.6	229.9
77.5°	99.5	128.8	169.8	190.4	190.4
80°	71.1	101.9	139.8	149.3	150.9
82.5°	46.6	76.6	103.5	102.7	102.7
85°	26.9	49.8	61.6	60.0	60.0
87.5°	10.3	20.5	22.1	22.1	21.3
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)