

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: P389689

Luminaire Tested: **24CZ2-30VHE-S-UNV-L935-CD1-SWPD1-U**

Issue Date: 2/28/2020

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: P389689
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1805-783-1)
Test Lab: INNOVATIONS CENTER(G3)
Issue Date: 2/28/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: 24CZ2-30VHE-S-UNV-L935-CD1-SWPD1-U
Description: 2x4 CRUZE LED TROFFER WITH 3500K, 90 LEDS, AND SMOOTH LENS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 2641.7 lumens
Efficiency: N/A
Efficacy: 129.5 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

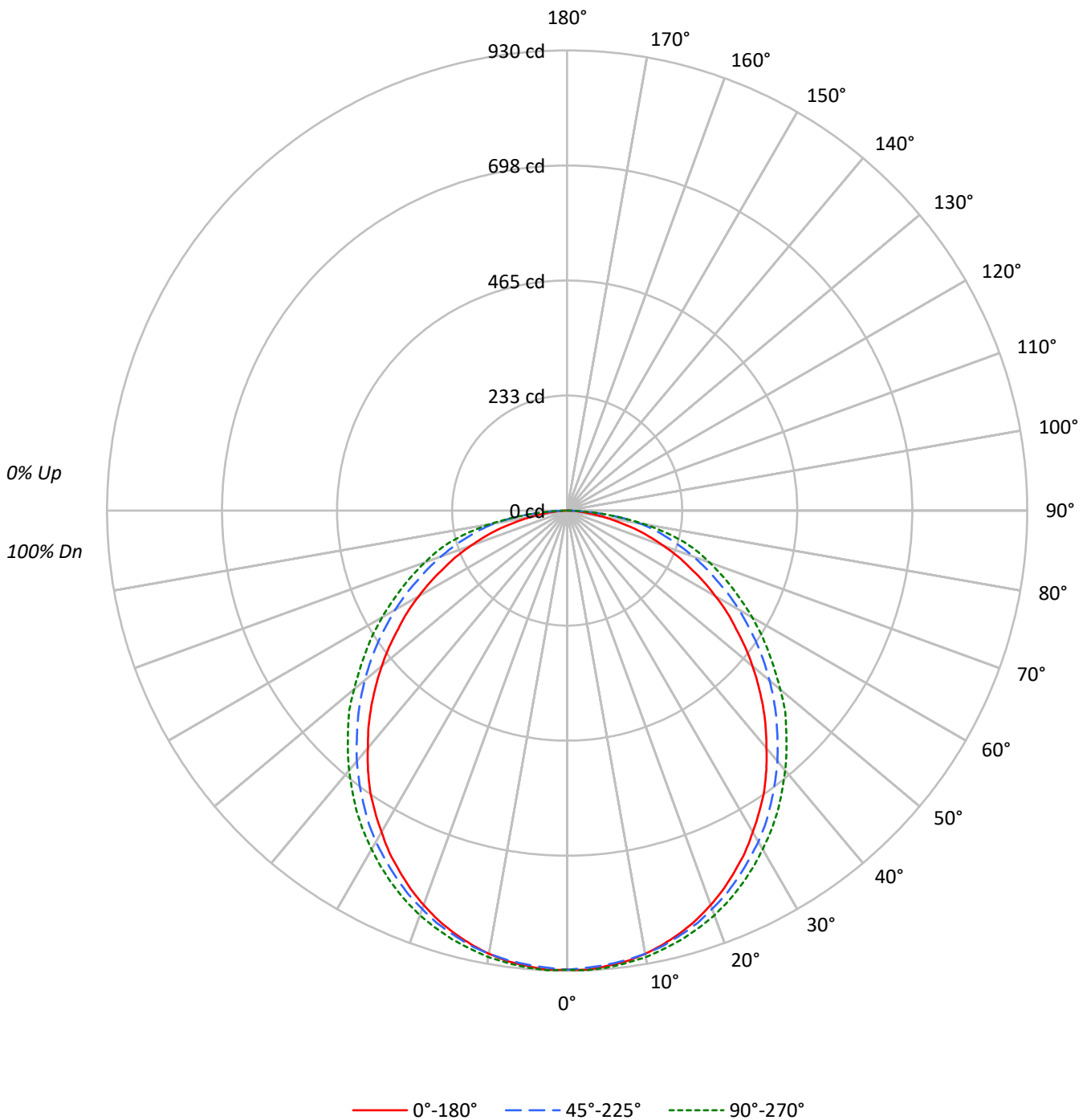
Input Watts (W): 20.4
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	1249	1249	1249
5°	1248	1244	1252
10°	1243	1243	1252
15°	1231	1237	1249
20°	1215	1227	1246
25°	1192	1215	1238
30°	1166	1201	1228
35°	1140	1181	1218
40°	1101	1161	1204
45°	1065	1138	1191
50°	1024	1117	1177
55°	978	1096	1165
60°	932	1079	1163
65°	874	1060	1170
70°	809	1066	1201
75°	724	1086	1269
80°	585	1151	1242
85°	440	1010	985



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	87.9	3.3
10°-20°	251.0	9.5
20°-30°	377.4	14.3
30°-40°	449.5	17.0
40°-50°	460.0	17.4
50°-60°	414.2	15.7
60°-70°	325.3	12.3
70°-80°	211.1	8.0
80°-90°	65.3	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°	716.3	27.1
0°-40°	1165.8	44.1
0°-60°	2040.0	77.2
0°-90°	2641.7	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2641.7	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	928	928	928	928	928	
5°	924	926	921	926	927	88
15°	884	886	888	895	897	249
25°	803	810	818	832	834	370
35°	694	702	719	737	742	433
45°	560	573	598	621	626	431
55°	417	436	467	492	497	374
65°	274	295	333	361	368	273
75°	139	166	209	238	244	147
85°	28	53	65	64	64	34
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	928.0	928.0	928.0	928.0	928.0
2.5°	928.9	928.9	924.7	928.9	929.7
5°	923.9	925.5	921.3	926.4	927.2
7.5°	918.8	918.8	916.3	921.3	922.2
10°	909.6	910.4	909.6	915.5	916.3
12.5°	897.8	899.5	900.4	906.2	907.1
15°	883.6	886.1	887.8	895.3	897.0
17.5°	867.6	870.1	874.3	882.7	884.4
20°	848.3	851.7	856.7	867.6	870.1
22.5°	827.4	830.7	839.1	849.2	853.4
25°	803.0	809.7	818.1	831.5	834.1
27.5°	778.7	784.6	795.5	809.7	813.1
30°	750.2	759.4	772.8	787.1	790.4
32.5°	722.5	731.7	747.6	762.7	766.9
35°	693.9	702.3	719.1	736.7	741.8
37.5°	661.2	672.1	690.6	708.2	713.2
40°	626.8	640.2	661.2	679.7	685.5
42.5°	594.1	608.3	629.3	649.5	656.2
45°	559.7	573.1	598.3	620.9	626.0
47.5°	524.4	539.5	566.4	589.0	597.4
50°	489.2	505.1	533.7	557.2	562.2
52.5°	454.0	470.7	500.9	526.1	528.6
55°	417.0	435.5	467.4	491.7	496.7
57.5°	383.5	399.4	433.8	459.0	464.9
60°	346.5	364.2	401.1	424.6	432.1
62.5°	311.3	329.8	368.4	391.9	398.6
65°	274.4	295.4	333.1	360.8	367.5
67.5°	242.5	262.6	302.9	329.8	336.5
70°	205.6	228.2	271.0	298.7	305.4
72.5°	173.7	197.2	240.0	266.8	276.9
75°	139.3	166.1	208.9	237.5	244.2
77.5°	105.7	136.8	180.4	202.2	202.2
80°	75.5	108.2	148.5	158.6	160.3
82.5°	49.5	81.4	109.9	109.1	109.1
85°	28.5	52.9	65.4	63.8	63.8
87.5°	10.9	21.8	23.5	23.5	22.7
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)