

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: P389691

Luminaire Tested: **24CZ2-30VHE-S-UNV-L940-CD1-SDWPD1-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: P389691
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-L940-CD1-SDWPD1-U
Description: 2x4 CRUZE LED TROFFER WITH 4000K, 90 LEDS, AND SMOOTH LENS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 2636.9 lumens
Efficiency: N/A
Efficacy: 129.3 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

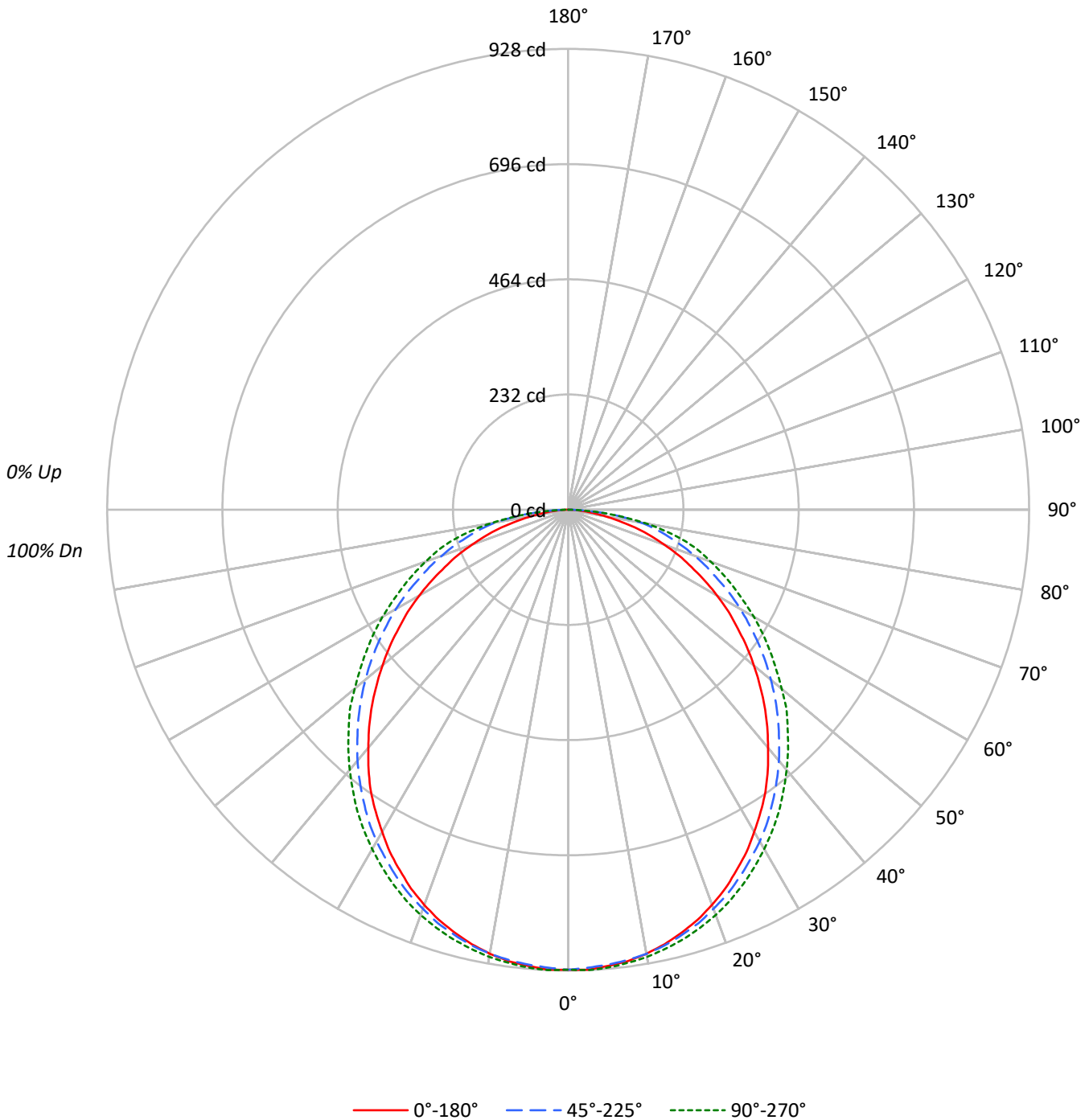
Input Watts (W): 20.4
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	1246	1246	1246
5°	1246	1242	1250
10°	1240	1240	1250
15°	1229	1234	1247
20°	1212	1225	1244
25°	1190	1212	1236
30°	1163	1198	1226
35°	1138	1179	1216
40°	1099	1159	1202
45°	1063	1136	1189
50°	1022	1115	1175
55°	977	1094	1163
60°	931	1077	1161
65°	872	1059	1168
70°	807	1064	1199
75°	723	1084	1267
80°	584	1149	1240
85°	440	1008	983



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	87.7	3.3
10°-20°	250.6	9.5
20°-30°	376.7	14.3
30°-40°	448.7	17.0
40°-50°	459.2	17.4
50°-60°	413.4	15.7
60°-70°	324.7	12.3
70°-80°	210.7	8.0
80°-90°	65.2	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°	715.0	27.1
0°-40°	1163.7	44.1
0°-60°	2036.3	77.2
0°-90°	2636.9	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2636.9	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	926	926	926	926	926	
5°	922	924	920	925	926	88
15°	882	884	886	894	895	249
25°	802	808	817	830	833	369
35°	693	701	718	735	740	432
45°	559	572	597	620	625	431
55°	416	435	466	491	496	373
65°	274	295	332	360	367	273
75°	139	166	209	237	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°	926.4	926.4	926.4	926.4	926.4
2.5°	927.2	927.2	923.0	927.2	928.0
5°	922.2	923.8	919.7	924.7	925.5
7.5°	917.1	917.1	914.6	919.7	920.5
10°	907.9	908.8	907.9	913.8	914.6
12.5°	896.2	897.9	898.7	904.6	905.4
15°	882.0	884.5	886.2	893.7	895.4
17.5°	866.1	868.6	872.8	881.1	882.8
20°	846.8	850.1	855.2	866.1	868.6
22.5°	825.9	829.2	837.6	847.6	851.8
25°	801.6	808.3	816.6	830.0	832.6
27.5°	777.3	783.1	794.0	808.3	811.6
30°	748.8	758.0	771.4	785.6	789.0
32.5°	721.2	730.4	746.3	761.4	765.5
35°	692.7	701.1	717.8	735.4	740.4
37.5°	660.0	670.9	689.3	706.9	711.9
40°	625.7	639.1	660.0	678.4	684.3
42.5°	593.0	607.2	628.2	648.3	655.0
45°	558.7	572.1	597.2	619.8	624.8
47.5°	523.5	538.6	565.4	588.0	596.4
50°	488.3	504.2	532.7	556.2	561.2
52.5°	453.1	469.9	500.0	525.2	527.7
55°	416.3	434.7	466.5	490.8	495.8
57.5°	382.8	398.7	433.0	458.2	464.0
60°	345.9	363.5	400.4	423.8	431.4
62.5°	310.7	329.2	367.7	391.1	397.8
65°	273.9	294.8	332.5	360.2	366.9
67.5°	242.1	262.2	302.4	329.2	335.9
70°	205.2	227.8	270.5	298.2	304.9
72.5°	173.4	196.8	239.5	266.3	276.4
75°	139.0	165.8	208.6	237.0	243.7
77.5°	105.5	136.5	180.1	201.9	201.9
80°	75.4	108.0	148.3	158.3	160.0
82.5°	49.4	81.2	109.7	108.9	108.9
85°	28.5	52.8	65.3	63.7	63.7
87.5°	10.9	21.8	23.5	23.5	22.6
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)