

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: P388489

Luminaire Tested: **24CZ2-30HE-SQR-UNV-L930-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: P388489
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2002-678-2)
Test Lab: INNOVATION CENTER (G2)
Issue Date: 2/28/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: 24CZ2-30HE-SQR-UNV-L930-CD1-SWPD1-U
Description: 2x4 CRUZE LED TROFFER WITH 3000K, 90 LEDS, AND SQUARE LENS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 2358.6 lumens
Efficiency: N/A
Efficacy: 105.3 lumens/watt
Spacing Criteria (0/90/45): 1.21 / 1.33 / 1.41
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')
CIE Type: Direct

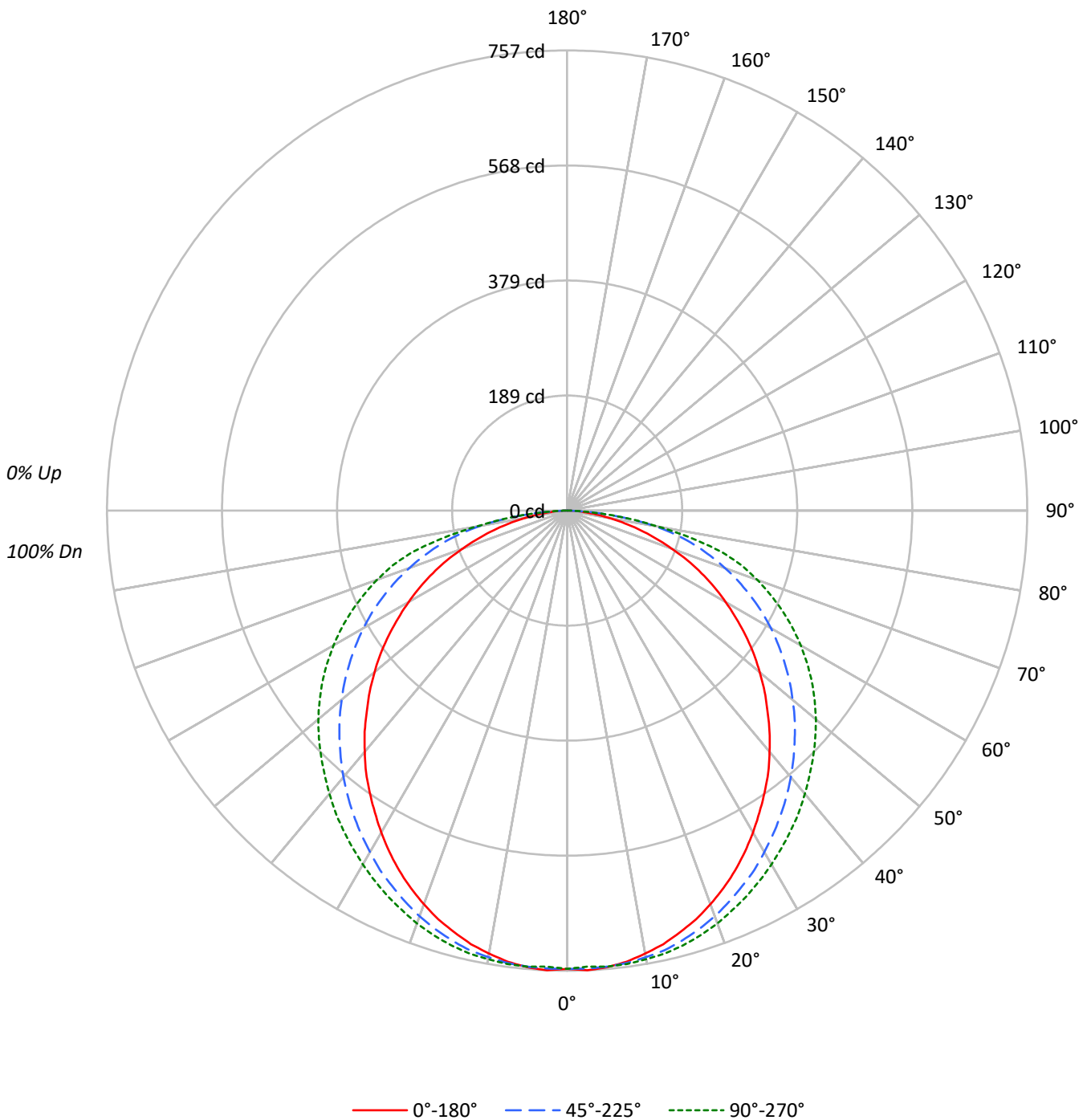
Input Watts (W): 22.4
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	98	94	105	100	96	92	96	93	89	92	89	87	89	86	84	82
2	98	89	81	75	95	87	80	74	83	78	73	80	75	71	77	73	69	67
3	89	77	69	62	86	76	68	61	73	66	60	70	64	59	67	62	58	56
4	81	68	59	52	78	67	58	52	64	57	51	62	55	50	60	54	49	47
5	74	61	51	44	72	60	51	44	57	50	44	55	49	43	54	48	43	41
6	68	55	45	39	66	54	45	38	52	44	38	50	43	38	48	42	37	35
7	63	49	40	34	62	49	40	34	47	39	34	45	39	33	44	38	33	31
8	59	45	36	30	57	44	36	30	43	35	30	42	35	30	40	34	30	28
9	55	41	33	27	54	41	33	27	39	32	27	38	32	27	37	31	27	25
10	52	38	30	25	50	37	30	24	36	29	24	36	29	24	35	29	24	22

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	1014	1014	1014
5°	1018	1017	1017
10°	1011	1019	1024
15°	1000	1020	1031
20°	987	1017	1035
25°	970	1012	1038
30°	950	1008	1044
35°	930	1006	1054
40°	910	1006	1068
45°	886	1008	1089
50°	866	1014	1118
55°	840	1025	1153
60°	811	1042	1195
65°	776	1061	1245
70°	720	1088	1308
75°	652	1125	1369
80°	549	1128	1177
85°	421	854	854



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	71.6	3.0
10°-20°	205.9	8.7
20°-30°	312.8	13.3
30°-40°	380.4	16.1
40°-50°	405.0	17.2
50°-60°	385.8	16.4
60°-70°	322.6	13.7
70°-80°	215.1	9.1
80°-90°	59.5	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°	590.2	25.0
0°-40°	970.6	41.2
0°-60°	1761.4	74.7
0°-90°	2358.6	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2358.6	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	754	754	754	754	754	
5°	754	749	753	753	753	72
15°	718	720	732	738	740	203
25°	654	662	682	693	699	301
35°	566	583	612	632	642	354
45°	466	491	530	559	572	360
55°	358	389	437	475	492	320
65°	244	280	333	375	391	241
75°	125	165	216	253	263	133
85°	27	51	55	54	55	33
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	753.9	753.9	753.9	753.9	753.9
2.5°	757.0	751.6	753.9	753.9	750.8
5°	753.9	749.3	753.1	753.1	753.1
7.5°	748.5	744.6	750.8	752.4	752.4
10°	739.9	738.3	746.1	748.5	749.3
12.5°	730.6	729.8	740.7	743.8	746.1
15°	718.1	719.7	732.1	737.6	739.9
17.5°	704.9	708.0	722.0	729.8	732.1
20°	689.3	694.0	710.3	718.1	722.8
22.5°	672.1	679.2	696.3	705.6	711.1
25°	653.5	662.0	681.5	693.2	699.4
27.5°	633.2	644.1	666.7	679.9	686.2
30°	611.4	623.9	648.8	664.4	672.1
32.5°	588.8	603.6	630.9	648.0	657.3
35°	566.2	582.6	612.2	632.4	641.8
37.5°	543.6	560.0	592.7	614.5	626.2
40°	517.9	537.4	572.5	596.6	608.3
42.5°	493.0	514.0	551.4	577.9	590.4
45°	465.8	490.7	529.6	559.2	572.5
47.5°	440.8	465.8	507.8	539.0	553.8
50°	413.6	440.0	484.4	518.7	534.3
52.5°	387.1	414.3	461.1	497.7	513.3
55°	358.3	389.4	436.9	475.1	491.5
57.5°	329.5	362.9	412.0	451.7	468.1
60°	301.4	335.7	387.1	426.8	443.9
62.5°	273.4	307.6	361.4	401.9	418.2
65°	243.8	279.6	333.3	374.6	391.0
67.5°	214.2	251.6	305.3	346.6	362.2
70°	183.0	222.8	276.5	317.0	332.6
72.5°	154.2	193.9	246.9	286.6	301.4
75°	125.4	165.1	216.5	253.1	263.3
77.5°	97.4	137.1	183.0	207.2	209.5
80°	70.9	108.3	145.6	152.7	151.9
82.5°	47.5	81.0	100.5	101.3	103.6
85°	27.3	50.6	55.3	54.5	55.3
87.5°	10.9	17.9	15.6	11.7	11.7
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)