

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: P230590

Luminaire Tested: **22CZ-LD5-34-S-UNV-L940-CD1-U**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P230590
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P25712)
Test Lab: INNOVATION CENTER-P2
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: 22CZ-LD5-34-S-UNV-L940-CD1-U
Description: CRUZE 2x2 LED TROFFER
WITH SMOOTH LENS
Light Source: (84) 4000K CCT, 90 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 3147.0 lumens
Efficiency: N/A
Efficacy: 107.0 lumens/watt
Spacing Criteria (0/90/45): 1.18 / 1.24 / 1.33
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

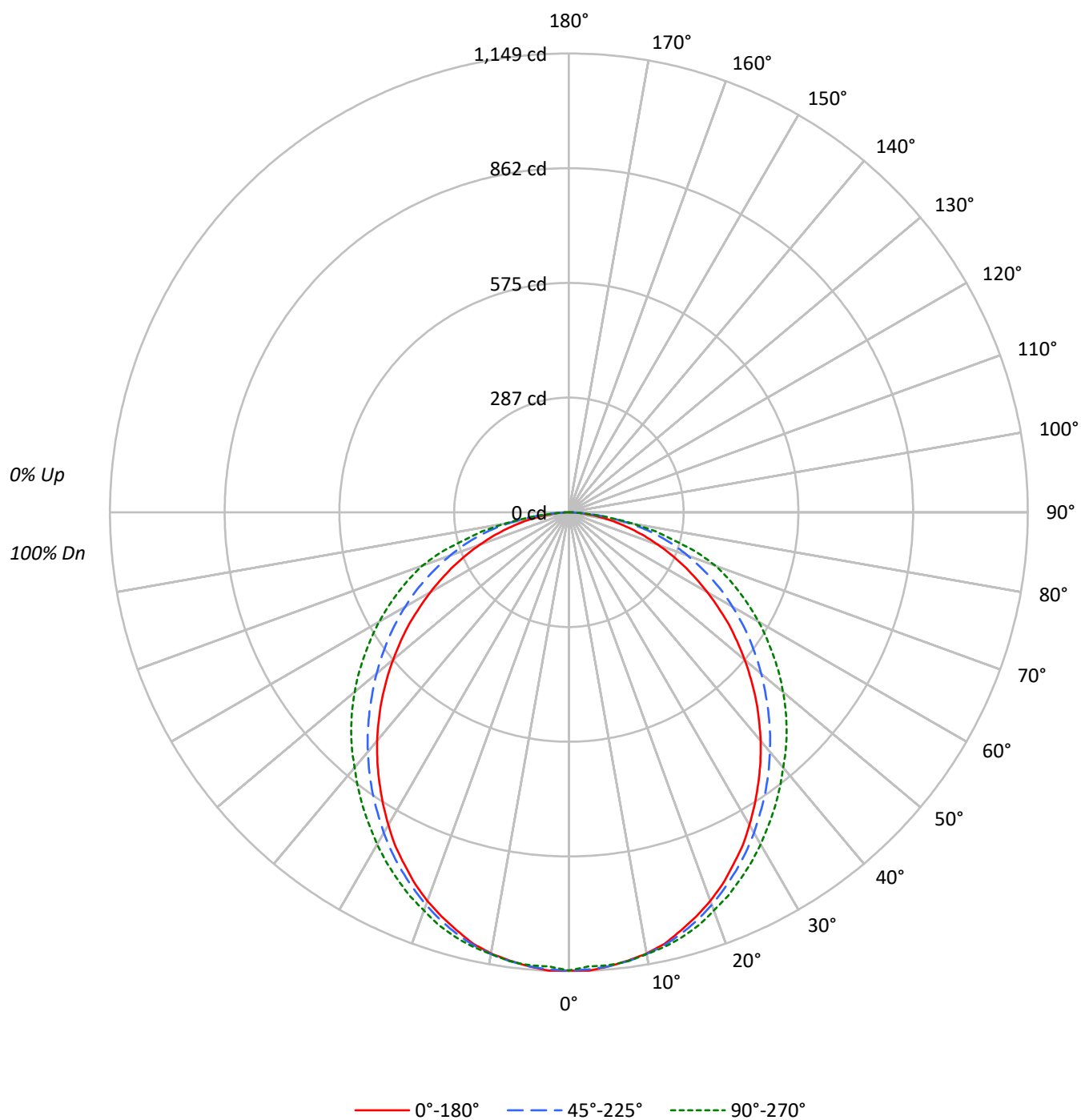
Input Watts (W): 29.4
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	3087	3087	3087
5°	3083	3083	3075
10°	3065	3069	3069
15°	3019	3040	3066
20°	2965	2995	3039
25°	2890	2940	3012
30°	2809	2879	2982
35°	2716	2815	2955
40°	2623	2751	2931
45°	2520	2686	2934
50°	2405	2632	2930
55°	2290	2588	2929
60°	2156	2546	2953
65°	2021	2512	2993
70°	1867	2485	3068
75°	1681	2467	2845
80°	1475	2295	2483
85°	1213	1726	1541



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	108.3	3.4
10°-20°	307.8	9.8
20°-30°	457.1	14.5
30°-40°	538.1	17.1
40°-50°	548.5	17.4
50°-60°	494.7	15.7
60°-70°	389.7	12.4
70°-80°	240.4	7.6
80°-90°	62.4	2.0
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°	873.2	27.7
0°-40°	1411.3	44.8
0°-60°	2454.6	78.0
0°-90°	3147.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3147.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1147	1147	1147	1147	1147	
5°	1141	1143	1141	1140	1138	108
15°	1084	1088	1091	1097	1100	306
25°	973	980	990	1007	1014	449
35°	827	836	857	884	899	517
45°	662	673	706	748	771	510
55°	488	505	552	602	624	436
65°	317	340	394	444	470	314
75°	162	189	237	264	274	173
85°	39	50	56	53	50	46
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1147.3	1147.3	1147.3	1147.3	1147.3
2.5°	1148.8	1148.8	1145.8	1142.7	1138.2
5°	1141.2	1142.7	1141.2	1139.7	1138.2
7.5°	1132.2	1133.7	1133.7	1133.7	1133.7
10°	1121.6	1123.1	1123.1	1123.1	1123.1
12.5°	1106.5	1108.0	1109.5	1111.0	1114.0
15°	1083.8	1088.3	1091.3	1097.4	1100.4
17.5°	1061.1	1065.6	1070.2	1077.7	1083.8
20°	1035.4	1038.4	1046.0	1055.1	1061.1
22.5°	1006.7	1011.2	1018.8	1030.9	1039.9
25°	973.4	979.5	990.1	1006.7	1014.3
27.5°	941.7	946.2	959.8	978.0	988.6
30°	903.9	910.0	926.6	949.3	959.8
32.5°	866.1	873.7	891.8	917.5	929.6
35°	826.8	835.9	857.0	884.3	899.4
37.5°	787.5	796.6	820.8	851.0	867.6
40°	746.7	755.8	783.0	816.2	834.4
42.5°	704.4	715.0	745.2	783.0	804.1
45°	662.1	672.6	705.9	748.2	770.9
47.5°	618.2	630.3	666.6	713.5	736.1
50°	574.4	588.0	628.8	677.2	699.8
52.5°	530.6	545.7	589.5	639.4	663.6
55°	488.2	504.9	551.7	601.6	624.3
57.5°	442.9	462.5	512.4	560.8	586.5
60°	400.6	421.7	473.1	521.5	548.7
62.5°	358.2	380.9	435.3	483.7	509.4
65°	317.4	340.1	394.5	444.4	470.1
67.5°	276.6	302.3	355.2	405.1	430.8
70°	237.3	264.5	315.9	364.3	390.0
72.5°	199.5	226.7	278.1	323.5	338.6
75°	161.7	188.9	237.3	264.5	273.6
77.5°	127.0	152.7	195.0	211.6	223.7
80°	95.2	117.9	148.1	158.7	160.2
82.5°	65.0	84.6	102.8	104.3	102.8
85°	39.3	49.9	55.9	52.9	49.9
87.5°	18.1	19.7	18.1	12.1	7.6
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)