

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: P391269

Luminaire Tested: **24CZ2-35VHE-HRP-UNV-L930-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: P391269
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1808-918-19)
Test Lab: INNOVATIONS CENTER(G3)
Issue Date: 2/28/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: 24CZ2-35VHE-HRP-UNV-L930-CD1-SDWPD1-U
Description: 2x4 CRUZE LED TROFFER WITH 3000K, 90 LEDS, AND HRP LENS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 2409.4 lumens
Efficiency: N/A
Efficacy: 105.7 lumens/watt
Spacing Criteria (0/90/45): 1.26 / 1.3 / 1.41
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')
CIE Type: Direct

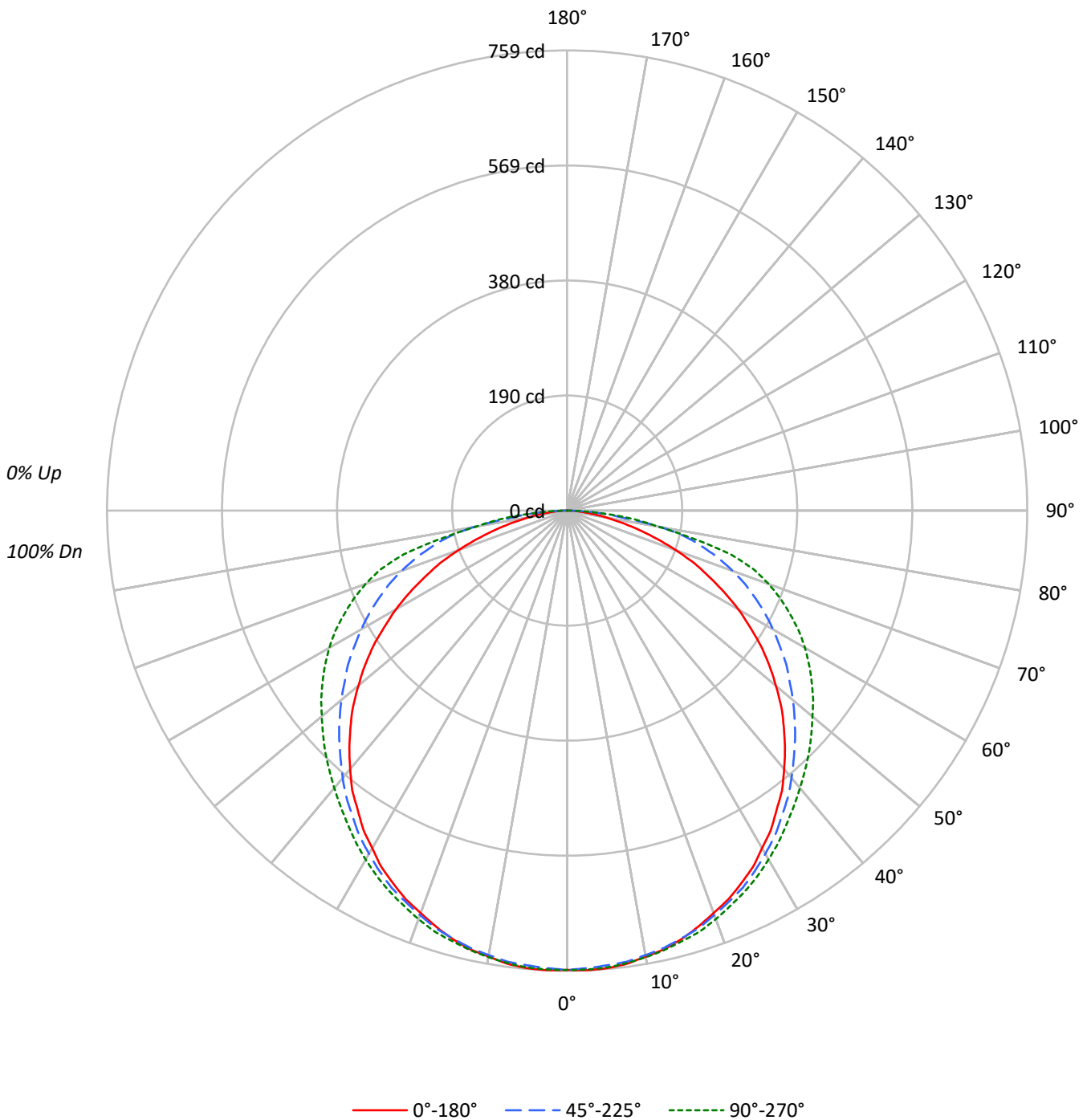
Input Watts (W): 22.8
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	98	94	105	100	96	92	96	93	89	92	89	87	88	86	84	82					82			
2	97	89	81	75	95	87	80	74	83	77	72	80	75	71	77	73	69	67					67			
3	88	77	68	62	86	76	68	61	72	66	60	70	64	59	67	62	58	56					56			
4	81	68	59	52	78	67	58	51	64	57	51	62	55	50	59	54	49	47					47			
5	74	60	51	44	72	59	51	44	57	49	43	55	48	43	53	47	42	40					40			
6	68	54	45	38	66	53	45	38	51	44	38	50	43	37	48	42	37	35					35			
7	63	49	40	34	61	48	40	34	47	39	33	45	38	33	44	38	33	31					31			
8	59	45	36	30	57	44	36	30	43	35	30	41	34	29	40	34	29	27					27			
9	55	41	33	27	53	40	32	27	39	32	27	38	31	26	37	31	26	24					24			
10	51	38	30	24	50	37	29	24	36	29	24	35	29	24	34	28	24	22					22			

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	1019	1019	1019
5°	1023	1017	1022
10°	1020	1017	1022
15°	1019	1017	1024
20°	1011	1016	1027
25°	1008	1018	1029
30°	999	1016	1032
35°	989	1013	1036
40°	978	1012	1049
45°	962	1012	1073
50°	941	1018	1106
55°	917	1034	1155
60°	878	1055	1219
65°	822	1092	1294
70°	747	1142	1391
75°	634	1205	1454
80°	500	1213	1176
85°	369	923	1033



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	71.9	3.0
10°-20°	206.9	8.6
20°-30°	316.3	13.1
30°-40°	386.7	16.0
40°-50°	412.1	17.1
50°-60°	394.1	16.4
60°-70°	333.8	13.9
70°-80°	224.3	9.3
80°-90°	63.3	2.6
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°	595.0	24.7
0°-40°	981.7	40.7
0°-60°	1787.9	74.2
0°-90°	2409.4	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2409.4	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	758	758	758	758	758	
5°	758	756	753	756	756	72
15°	731	731	730	736	735	206
25°	679	681	686	692	693	313
35°	602	607	617	629	631	377
45°	506	514	532	554	564	390
55°	391	405	441	476	492	348
65°	258	284	343	388	406	256
75°	122	166	232	271	280	131
85°	24	49	60	64	67	30
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	757.7	757.7	757.7	757.7	757.7
2.5°	758.9	758.9	755.3	757.7	757.7
5°	757.7	756.5	752.9	756.5	756.5
7.5°	754.1	752.9	750.5	754.1	752.9
10°	746.9	746.9	744.5	748.1	748.1
12.5°	741.0	739.8	738.6	743.3	742.2
15°	731.4	731.4	730.2	736.2	735.0
17.5°	719.4	720.6	721.8	726.6	727.8
20°	706.3	708.7	709.9	717.1	717.1
22.5°	694.3	695.5	697.9	705.1	705.1
25°	678.8	681.2	686.0	692.0	693.2
27.5°	663.3	664.5	670.4	678.8	680.0
30°	643.0	646.5	653.7	663.3	664.5
32.5°	625.0	628.6	637.0	646.5	648.9
35°	602.3	607.1	616.7	628.6	631.0
37.5°	582.0	585.6	597.5	610.7	614.3
40°	556.9	564.1	576.0	591.6	597.5
42.5°	531.8	539.0	553.3	573.6	580.8
45°	505.5	513.9	531.8	554.5	564.1
47.5°	479.2	488.8	509.1	535.4	546.2
50°	449.4	461.3	486.4	516.3	528.2
52.5°	420.7	435.0	462.5	496.0	511.5
55°	390.8	405.1	441.0	475.6	492.4
57.5°	357.3	376.5	415.9	455.3	473.3
60°	326.3	344.2	392.0	435.0	452.9
62.5°	292.8	316.7	368.1	413.5	431.4
65°	258.1	284.4	343.0	388.4	406.3
67.5°	227.1	255.7	317.9	363.3	381.2
70°	190.0	225.9	290.4	335.8	353.7
72.5°	155.4	194.8	261.7	305.9	322.7
75°	121.9	166.1	231.8	271.3	279.7
77.5°	90.8	137.4	200.8	217.5	211.5
80°	64.5	109.9	156.6	148.2	151.8
82.5°	41.8	83.7	96.8	109.9	113.5
85°	23.9	49.0	59.8	64.5	66.9
87.5°	10.8	17.9	23.9	23.9	22.7
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)