

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: P390719

Luminaire Tested: **22CZ2-80VHE-RDP-UNV-L930-CD1-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: P390719
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1805-783-24)
Test Lab: INNOVATIONS CENTER(G3)
Issue Date: 2/28/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: 22CZ2-80VHE-RDP-UNV-L930-CD1-U
Description: 2x2 CRUZE LED TROFFER WITH 3000K, 90 LEDS, AND RDP LENS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 4490.4 lumens
Efficiency: N/A
Efficacy: 76.0 lumens/watt
Spacing Criteria (0/90/45): 1.25 / 1.3 / 1.41
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

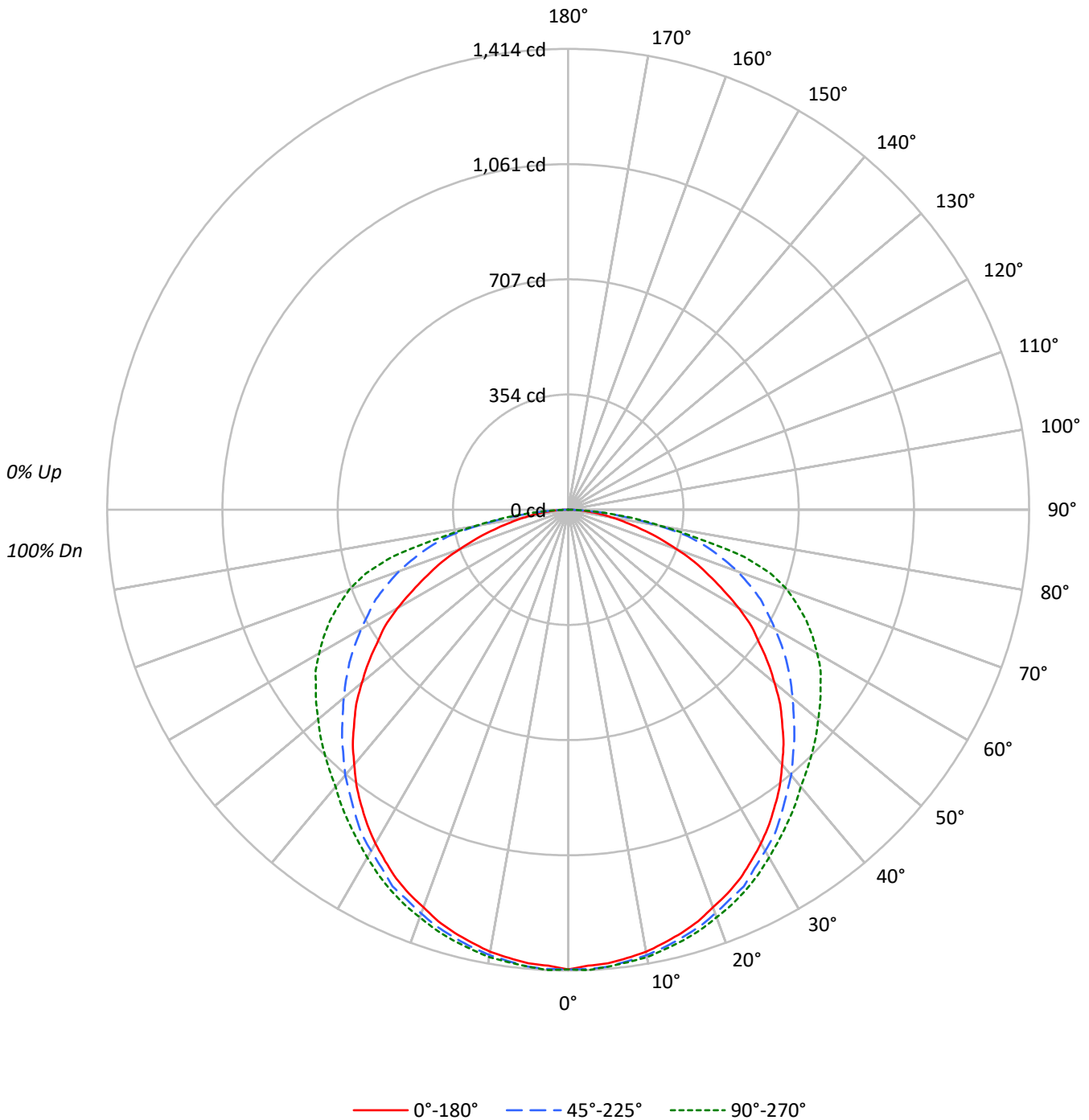
Input Watts (W): 59.1
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	92	89	92	89	86	88	86	84	82					82			
2	97	88	81	75	95	86	80	74	83	77	72	80	75	71	76	72	69	67					67			
3	88	77	68	61	86	75	67	61	72	65	60	70	64	59	67	62	58	55					55			
4	80	68	59	51	78	66	58	51	64	56	50	61	55	50	59	54	49	47					47			
5	74	60	51	44	72	59	50	44	57	49	43	55	48	43	53	47	42	40					40			
6	68	54	45	38	66	53	44	38	51	43	38	50	43	37	48	42	37	35					35			
7	63	49	40	33	61	48	39	33	47	39	33	45	38	33	44	37	33	31					31			
8	59	45	36	30	57	44	35	30	43	35	29	41	34	29	40	34	29	27					27			
9	55	41	32	27	53	40	32	27	39	32	26	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°	3796	3796	3796
5°	3774	3801	3801
10°	3764	3791	3809
15°	3745	3782	3810
20°	3718	3774	3812
25°	3708	3786	3825
30°	3675	3757	3828
35°	3635	3744	3852
40°	3586	3737	3899
45°	3532	3734	4023
50°	3457	3761	4190
55°	3363	3843	4432
60°	3253	3947	4747
65°	3029	4144	5132
70°	2781	4341	5614
75°	2438	4567	5805
80°	2098	4351	4556
85°	1837	3162	3467



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	133.4	3.0
10°-20°	383.1	8.5
20°-30°	584.5	13.0
30°-40°	713.7	15.9
40°-50°	763.1	17.0
50°-60°	736.5	16.4
60°-70°	634.0	14.1
70°-80°	429.0	9.6
80°-90°	113.2	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°	1101.0	24.5
0°-40°	1814.6	40.4
0°-60°	3314.2	73.8
0°-90°	4490.4	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4490.4	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1410	1410	1410	1410	1410	
5°	1397	1401	1407	1407	1407	133
15°	1344	1348	1358	1364	1368	379
25°	1249	1255	1275	1282	1288	575
35°	1107	1116	1140	1163	1173	692
45°	928	945	981	1031	1057	716
55°	717	740	819	902	945	642
65°	476	522	651	753	806	473
75°	234	310	439	528	558	252
85°	60	83	102	106	112	67
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1410.5	1410.5	1410.5	1410.5	1410.5
2.5°	1400.6	1403.9	1410.5	1410.5	1413.8
5°	1397.3	1400.6	1407.2	1407.2	1407.2
7.5°	1387.4	1390.7	1397.3	1400.6	1400.6
10°	1377.5	1380.8	1387.4	1390.7	1394.0
12.5°	1361.0	1364.3	1374.2	1380.8	1380.8
15°	1344.4	1347.7	1357.7	1364.3	1367.6
17.5°	1324.6	1331.2	1341.1	1347.7	1351.1
20°	1298.2	1304.8	1318.0	1327.9	1331.2
22.5°	1275.1	1281.7	1294.9	1304.8	1311.4
25°	1248.7	1255.3	1275.1	1281.7	1288.3
27.5°	1215.6	1222.2	1238.7	1252.0	1261.9
30°	1182.6	1189.2	1209.0	1225.5	1232.1
32.5°	1146.2	1156.2	1179.3	1192.5	1202.4
35°	1106.6	1116.5	1139.6	1162.8	1172.7
37.5°	1067.0	1076.9	1100.0	1129.7	1142.9
40°	1020.7	1033.9	1063.7	1103.3	1109.9
42.5°	977.8	994.3	1020.7	1067.0	1083.5
45°	928.2	944.7	981.1	1030.6	1057.1
47.5°	882.0	898.5	938.1	997.6	1030.6
50°	825.8	849.0	898.5	967.9	1000.9
52.5°	773.0	792.8	858.9	934.8	974.5
55°	716.8	739.9	819.2	901.8	944.7
57.5°	667.3	687.1	776.3	868.8	918.3
60°	604.5	630.9	733.3	832.4	882.0
62.5°	538.4	578.1	690.4	792.8	845.6
65°	475.7	521.9	650.8	753.2	806.0
67.5°	419.5	469.1	601.2	710.2	759.8
70°	353.5	416.2	551.7	657.4	713.5
72.5°	294.0	363.4	495.5	601.2	650.8
75°	234.5	310.5	439.3	528.5	558.3
77.5°	181.7	254.4	376.6	403.0	406.3
80°	135.4	201.5	280.8	284.1	294.0
82.5°	92.5	142.0	181.7	198.2	201.5
85°	59.5	82.6	102.4	105.7	112.3
87.5°	26.4	29.7	36.3	33.0	33.0
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)