

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: P390510

Luminaire Tested: **22CZ2-60VHE-HRP-UNV-L950-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: P390510
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: 22CZ2-60VHE-HRP-UNV-L950-CD1-SDWPD1-U
Description: 2x2 CRUZE LED TROFFER WITH 5000K, 90 LEDS, AND HRP LENS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 4588.1 lumens
Efficiency: N/A
Efficacy: 104.0 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

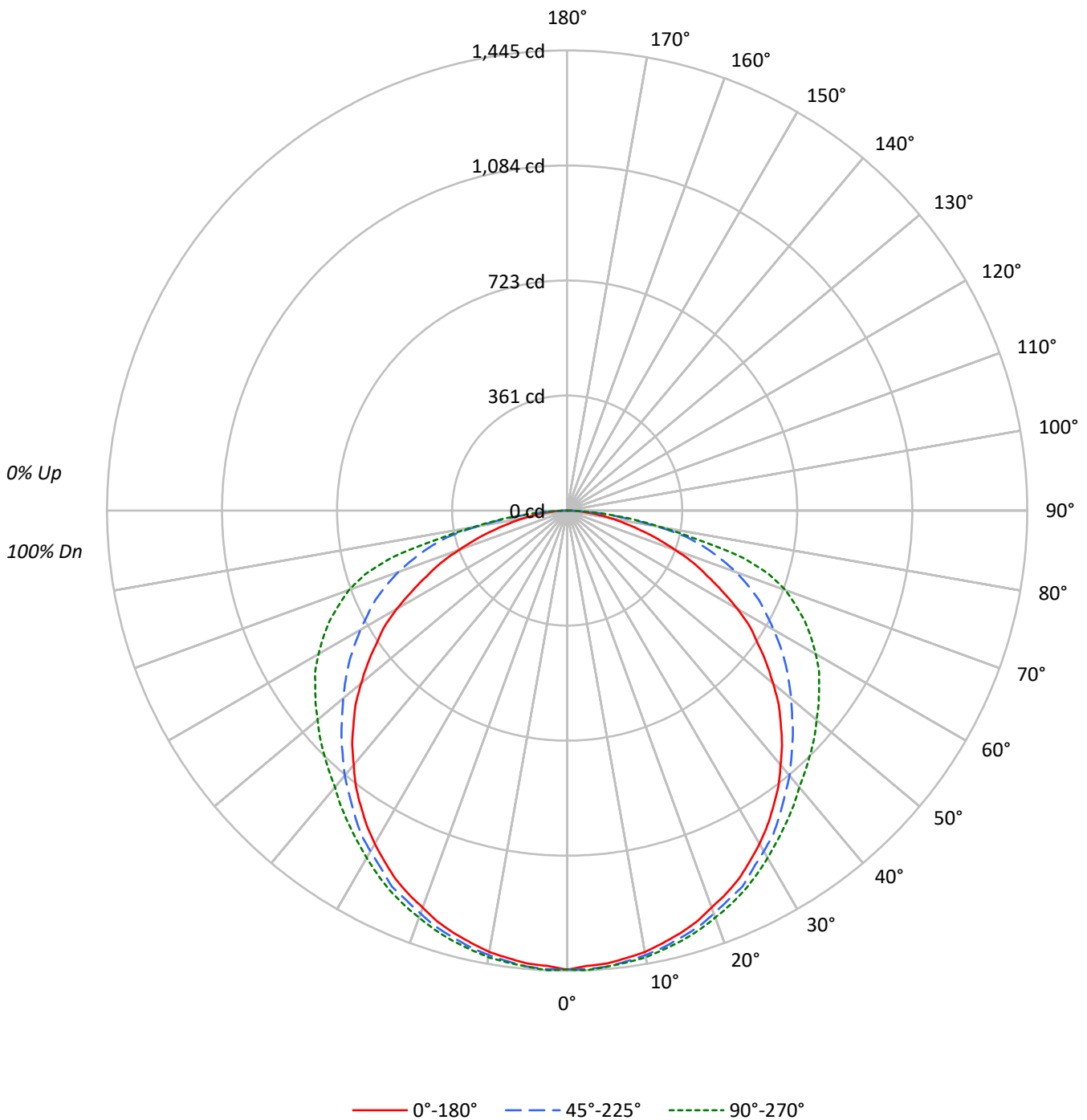
Input Watts (W): 44.1
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	3878	3878	3878
5°	3857	3884	3884
10°	3846	3874	3892
15°	3827	3865	3893
20°	3798	3857	3895
25°	3788	3868	3908
30°	3755	3838	3912
35°	3714	3825	3936
40°	3664	3818	3984
45°	3609	3815	4110
50°	3533	3843	4281
55°	3436	3927	4529
60°	3324	4033	4850
65°	3095	4234	5244
70°	2841	4435	5736
75°	2491	4667	5931
80°	2145	4446	4655
85°	1877	3230	3545



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	136.3	3.0
10°-20°	391.4	8.5
20°-30°	597.2	13.0
30°-40°	729.2	15.9
40°-50°	779.7	17.0
50°-60°	752.5	16.4
60°-70°	647.8	14.1
70°-80°	438.3	9.6
80°-90°	115.7	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°	1124.9	24.5
0°-40°	1854.1	40.4
0°-60°	3386.3	73.8
0°-90°	4588.1	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4588.1	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1441	1441	1441	1441	1441	
5°	1428	1431	1438	1438	1438	136
15°	1374	1377	1387	1394	1397	388
25°	1276	1283	1303	1310	1316	587
35°	1131	1141	1164	1188	1198	707
45°	948	965	1002	1053	1080	732
55°	732	756	837	921	965	656
65°	486	533	665	770	824	483
75°	240	317	449	540	570	257
85°	61	84	105	108	115	68
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1441.2	1441.2	1441.2	1441.2	1441.2
2.5°	1431.1	1434.5	1441.2	1441.2	1444.6
5°	1427.7	1431.1	1437.8	1437.8	1437.8
7.5°	1417.6	1421.0	1427.7	1431.1	1431.1
10°	1407.5	1410.8	1417.6	1421.0	1424.3
12.5°	1390.6	1393.9	1404.1	1410.8	1410.8
15°	1373.7	1377.1	1387.2	1393.9	1397.3
17.5°	1353.4	1360.2	1370.3	1377.1	1380.4
20°	1326.4	1333.2	1346.7	1356.8	1360.2
22.5°	1302.8	1309.6	1323.1	1333.2	1339.9
25°	1275.8	1282.6	1302.8	1309.6	1316.3
27.5°	1242.1	1248.8	1265.7	1279.2	1289.3
30°	1208.3	1215.1	1235.3	1252.2	1258.9
32.5°	1171.2	1181.3	1204.9	1218.4	1228.6
35°	1130.7	1140.8	1164.4	1188.1	1198.2
37.5°	1090.2	1100.3	1123.9	1154.3	1167.8
40°	1042.9	1056.4	1086.8	1127.3	1134.1
42.5°	999.1	1015.9	1042.9	1090.2	1107.1
45°	948.4	965.3	1002.4	1053.1	1080.1
47.5°	901.2	918.0	958.6	1019.3	1053.1
50°	843.8	867.4	918.0	988.9	1022.7
52.5°	789.8	810.0	877.5	955.2	995.7
55°	732.4	756.0	837.0	921.4	965.3
57.5°	681.8	702.0	793.2	887.7	938.3
60°	617.7	644.7	749.3	850.5	901.2
62.5°	550.2	590.7	705.4	810.0	864.0
65°	486.0	533.3	664.9	769.5	823.5
67.5°	428.6	479.3	614.3	725.7	776.3
70°	361.1	425.3	563.7	671.7	729.0
72.5°	300.4	371.3	506.3	614.3	664.9
75°	239.6	317.3	448.9	540.0	570.4
77.5°	185.6	259.9	384.8	411.8	415.1
80°	138.4	205.9	286.9	290.3	300.4
82.5°	94.5	145.1	185.6	202.5	205.9
85°	60.8	84.4	104.6	108.0	114.8
87.5°	27.0	30.4	37.1	33.8	33.8
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)