

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: P475365

Luminaire Tested: **14CZ2-39HE-UNV-L840-CD1-U**

Issue Date: 02/10/2021

Test Information

Test Method: LM-79-08
Report Number: P475365
Test Lab: INNOVATION CENTER(G3)
Issue Date: 02/10/2021
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: 14CZ2-39HE-UNV-L840-CD1-U
Description: 1'X4' TROFFER LED MODULE, HIGH EFFICIENCY,RIBBED LENS
Light Source: 4000K CCT, 80 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 3990.3 lumens
Efficiency: N/A
Efficacy: 140.5 lumens/watt
Spacing Criteria (0/90/45): 1.2 / 1.29 / 1.37
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

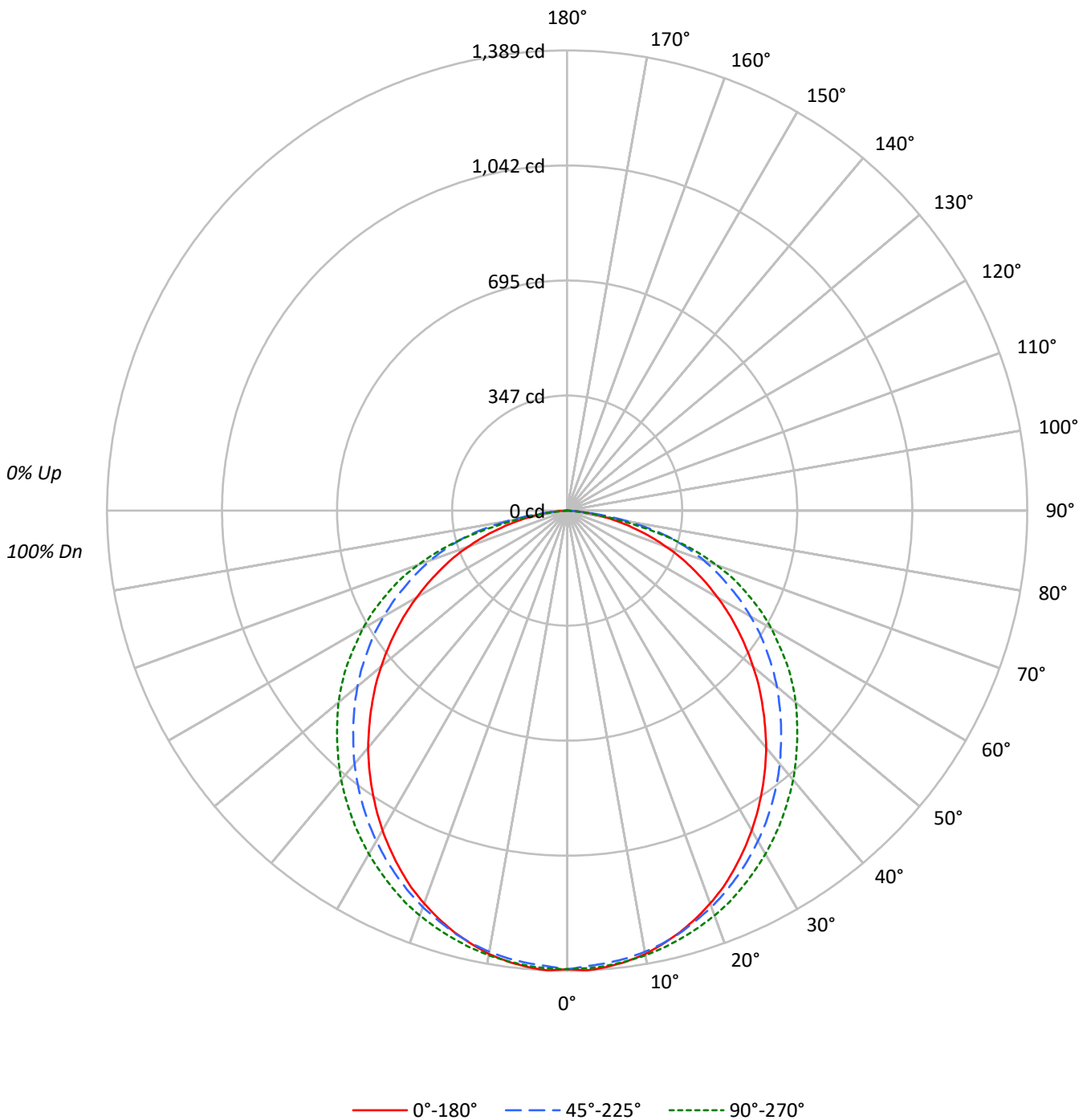
Input Watts (W): 28.4
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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					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	109	104	99	96	106	102	98	94	97	94	91	93	91	88	90	88	86	83					83			
2	99	90	83	77	96	88	82	76	85	79	75	81	77	73	78	75	71	69					69			
3	90	79	71	64	87	77	70	63	74	68	62	72	66	61	69	64	60	58					58			
4	82	70	61	54	80	68	60	54	66	59	53	64	57	52	61	56	51	49					49			
5	75	62	53	46	73	61	53	46	59	51	46	57	50	45	55	49	45	42					42			
6	69	56	47	40	68	55	46	40	53	46	40	51	45	39	50	44	39	37					37			
7	64	51	42	36	63	50	41	35	48	41	35	47	40	35	46	39	35	33					33			
8	60	46	38	32	58	46	37	32	44	37	31	43	36	31	42	36	31	29					29			
9	56	42	34	29	55	42	34	28	41	33	28	40	33	28	39	32	28	26					26			
10	52	39	31	26	51	39	31	26	38	31	26	37	30	26	36	30	25	24					24			

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	3725	3725	3725
5°	3736	3703	3725
10°	3713	3695	3724
15°	3670	3676	3723
20°	3614	3648	3725
25°	3545	3614	3721
30°	3464	3579	3720
35°	3373	3542	3720
40°	3282	3508	3729
45°	3175	3475	3737
50°	3067	3459	3772
55°	2951	3443	3804
60°	2820	3439	3831
65°	2677	3430	3839
70°	2493	3450	3766
75°	2210	3405	3377
80°	1853	2848	2300
85°	1300	1115	269



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	130.9	3.3
10°-20°	373.8	9.4
20°-30°	563.3	14.1
30°-40°	676.1	16.9
40°-50°	703.8	17.6
50°-60°	650.4	16.3
60°-70°	520.9	13.1
70°-80°	311.7	7.8
80°-90°	59.4	1.5
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°	1068.0	26.8
0°-40°	1744.1	43.7
0°-60°	3098.3	77.6
0°-90°	3990.3	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3990.3	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1384	1384	1384	1384	1384	
5°	1383	1380	1371	1381	1379	131
15°	1317	1317	1319	1336	1336	371
25°	1194	1200	1217	1248	1253	550
35°	1027	1042	1078	1121	1132	642
45°	834	859	913	967	982	644
55°	629	663	734	791	811	563
65°	420	464	539	592	603	417
75°	213	266	328	332	325	227
85°	42	62	36	15	9	54
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1384.3	1384.3	1384.3	1384.3	1384.3
2.5°	1389.0	1384.9	1376.3	1384.9	1382.9
5°	1382.9	1379.6	1370.9	1380.9	1378.9
7.5°	1372.9	1370.2	1363.6	1374.2	1372.2
10°	1358.9	1356.9	1352.2	1364.2	1362.9
12.5°	1339.5	1340.2	1337.5	1352.2	1350.9
15°	1317.4	1317.4	1319.4	1336.2	1336.2
17.5°	1291.4	1292.7	1296.7	1318.8	1319.4
20°	1262.0	1265.3	1274.0	1296.7	1300.7
22.5°	1230.5	1234.6	1246.6	1273.3	1279.3
25°	1193.8	1200.5	1217.2	1247.9	1253.3
27.5°	1155.0	1165.0	1185.8	1219.2	1225.9
30°	1114.9	1125.6	1151.7	1187.8	1197.1
32.5°	1071.5	1085.5	1116.9	1155.0	1165.7
35°	1026.7	1042.1	1078.1	1120.9	1132.3
37.5°	981.9	998.6	1039.4	1085.5	1096.9
40°	934.4	953.8	998.6	1046.1	1061.4
42.5°	884.3	905.7	955.2	1007.3	1022.0
45°	834.2	858.9	913.0	967.2	981.9
47.5°	785.4	810.8	869.6	925.7	941.1
50°	732.6	762.0	826.2	881.6	901.0
52.5°	681.1	713.9	781.4	837.5	856.9
55°	629.0	663.1	733.9	790.7	810.8
57.5°	578.2	614.3	689.1	745.3	759.3
60°	524.0	563.5	639.0	695.8	711.9
62.5°	473.2	514.0	590.2	645.0	660.4
65°	420.4	463.9	538.7	591.5	602.9
67.5°	371.0	414.4	489.9	535.4	546.8
70°	316.8	365.0	438.5	477.2	478.6
72.5°	265.4	314.2	385.7	410.4	407.1
75°	212.6	266.0	327.5	332.2	324.8
77.5°	165.1	218.6	260.7	246.0	231.3
80°	119.6	171.8	183.8	161.1	148.4
82.5°	78.9	120.3	111.0	79.5	68.2
85°	42.1	61.5	36.1	14.7	8.7
87.5°	16.0	10.7	4.0	3.3	2.7
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)