

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: P184196

Luminaire Tested: **22FR-32-HP-UNV-L840-CD1-U**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P184196
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P27146)
Test Lab: INNOVATION CENTER-P2
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: 22FR-32-HP-UNV-L840-CD1-U
Description: METALUX 2X2 FR TROFFER LED HIGH EFFICIENCY FIXTURE

Light Source: EATON LED 4000K
Ballast/Driver: OSRAM ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 3289.9 lumens
Efficiency: N/A
Efficacy: 114.6 lumens/watt
Spacing Criteria (0/90/45): 1.17 / 1.22 / 1.3
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

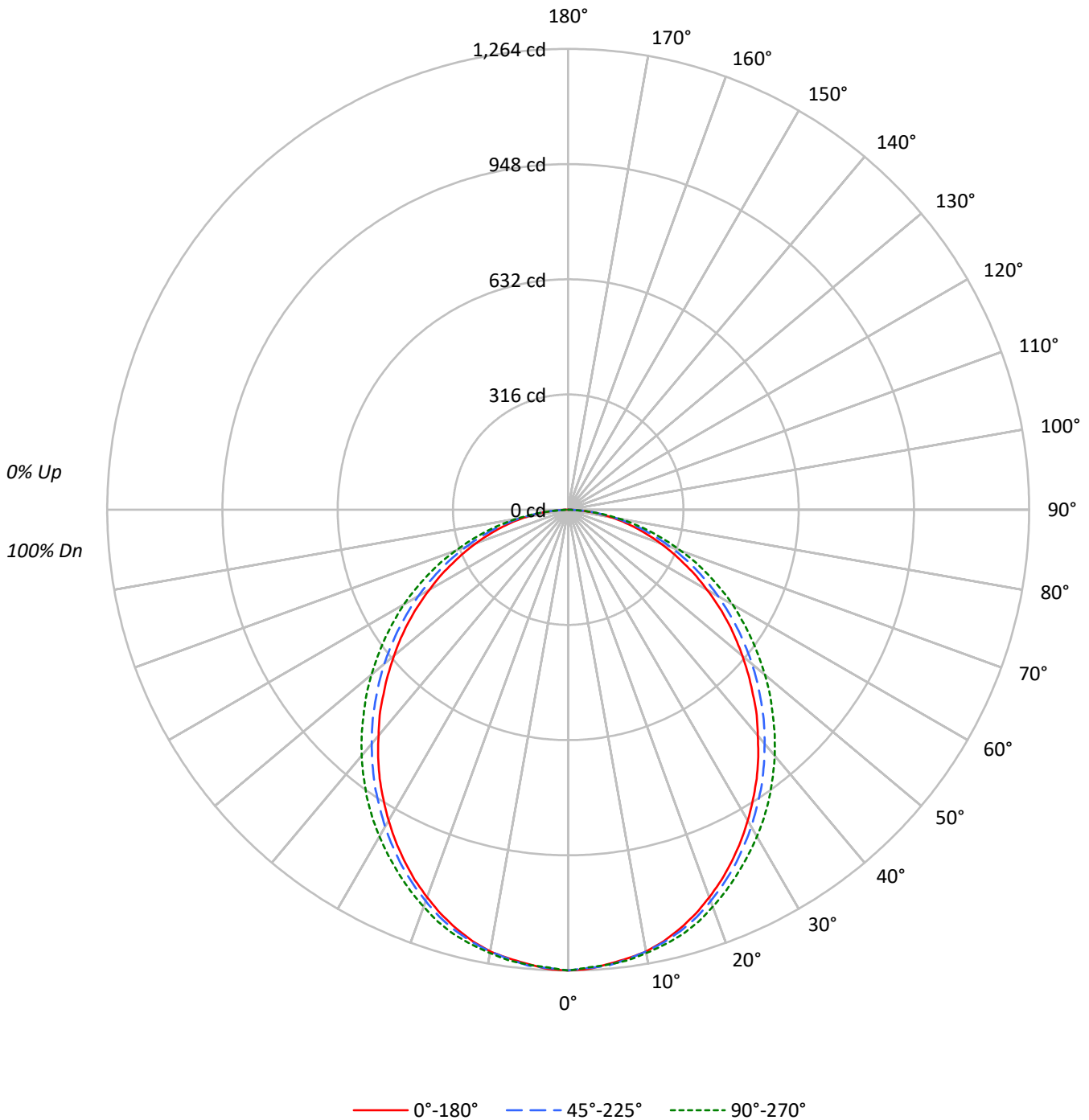
Input Watts (W): 28.7
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	0
RCR																		
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100
1	109	104	100	96	106	102	98	94	98	94	91	94	91	89	90	88	86	84
2	99	91	84	78	96	89	83	78	85	80	76	82	78	74	79	76	72	70
3	90	80	72	65	88	78	71	65	75	69	64	73	67	63	70	65	62	59
4	83	71	62	56	81	70	62	55	67	60	54	65	59	54	63	57	53	51
5	76	64	55	48	74	62	54	48	60	53	47	58	52	47	57	51	46	44
6	71	57	48	42	69	56	48	42	55	47	42	53	46	41	51	45	41	39
7	66	52	43	37	64	51	43	37	50	42	37	48	42	37	47	41	36	34
8	61	48	39	33	59	47	39	33	46	38	33	44	38	33	43	37	33	31
9	57	44	36	30	56	43	35	30	42	35	30	41	34	30	40	34	30	28
10	54	40	33	27	52	40	32	27	39	32	27	38	32	27	37	31	27	25

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	3401	3401	3401
5°	3380	3391	3384
10°	3362	3362	3374
15°	3311	3331	3361
20°	3239	3271	3320
25°	3156	3201	3268
30°	3059	3120	3216
35°	2959	3037	3161
40°	2840	2943	3095
45°	2726	2849	3019
50°	2608	2754	2947
55°	2496	2654	2870
60°	2368	2555	2803
65°	2241	2455	2704
70°	2120	2341	2582
75°	1989	2222	2439
80°	1839	2056	2208
85°	1553	1683	1683



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	118.9	3.6
10°-20°	336.8	10.2
20°-30°	497.0	15.1
30°-40°	579.1	17.6
40°-50°	579.8	17.6
50°-60°	507.7	15.4
60°-70°	382.7	11.6
70°-80°	225.6	6.9
80°-90°	62.4	1.9
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°	952.7	29.0
0°-40°	1531.8	46.6
0°-60°	2619.3	79.6
0°-90°	3289.9	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3289.9	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1264	1264	1264	1264	1264	
5°	1251	1253	1256	1250	1253	119
15°	1188	1190	1196	1200	1207	335
25°	1063	1067	1078	1091	1100	489
35°	901	906	924	944	962	563
45°	716	726	749	775	793	553
55°	532	540	566	592	612	476
65°	352	362	386	408	425	350
75°	191	198	214	228	235	203
85°	50	53	54	54	54	58
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1263.9	1263.9	1263.9	1263.9	1263.9
2.5°	1261.1	1261.1	1258.3	1256.9	1256.9
5°	1251.3	1252.7	1255.5	1249.9	1252.7
7.5°	1241.6	1241.6	1243.0	1244.4	1247.1
10°	1230.4	1230.4	1230.4	1234.6	1234.6
12.5°	1212.2	1212.2	1215.0	1216.4	1222.0
15°	1188.5	1189.9	1195.5	1199.7	1206.6
17.5°	1162.0	1164.7	1171.7	1177.3	1185.7
20°	1131.2	1136.8	1142.4	1150.8	1159.2
22.5°	1099.1	1103.3	1111.7	1121.5	1131.2
25°	1062.8	1067.0	1078.2	1090.7	1100.5
27.5°	1025.1	1029.3	1041.8	1055.8	1068.4
30°	984.6	990.2	1004.1	1020.9	1034.9
32.5°	942.7	948.3	963.6	983.2	999.9
35°	900.8	906.4	924.5	944.1	962.2
37.5°	856.1	861.7	881.2	903.6	921.7
40°	808.6	817.0	837.9	863.1	881.2
42.5°	765.3	772.3	794.7	819.8	837.9
45°	716.4	726.2	748.6	775.1	793.3
47.5°	670.4	680.1	703.9	730.4	750.0
50°	622.9	632.6	657.8	684.3	703.9
52.5°	578.2	586.6	611.7	638.2	657.8
55°	532.1	540.5	565.6	592.1	611.7
57.5°	486.0	494.4	519.5	546.1	565.6
60°	439.9	449.7	474.8	500.0	520.9
62.5°	396.6	405.0	430.1	453.9	472.0
65°	351.9	361.7	385.5	407.8	424.6
67.5°	310.0	319.8	342.2	364.5	378.5
70°	269.5	277.9	297.5	318.4	328.2
72.5°	229.0	237.4	255.6	272.3	280.7
75°	191.3	198.3	213.7	227.6	234.6
77.5°	155.0	162.0	173.2	183.0	188.5
80°	118.7	122.9	132.7	138.3	142.5
82.5°	83.8	88.0	92.2	97.8	97.8
85°	50.3	53.1	54.5	54.5	54.5
87.5°	20.9	20.9	18.2	15.4	14.0
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)