

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: P292629

Luminaire Tested: **22GR-LD5-28-A19/156-UNV-L93050-W2A1-U-5000K**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P292629
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P33284)
Test Lab: INNOVATION CENTER-P3
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: 22GR-LD5-28-A19/156-UNV-L93050-W2A1-U-5000K
Description: GRLED 2x2 TUNABLE WHITE TROFFER
WITH A19/156 LENS
Light Source: (168) 90 CRI LEDS TUNED TO 5000K CCT
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 2683.0 lumens
Efficiency: N/A
Efficacy: 116.8 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 1.24 / 1.21
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

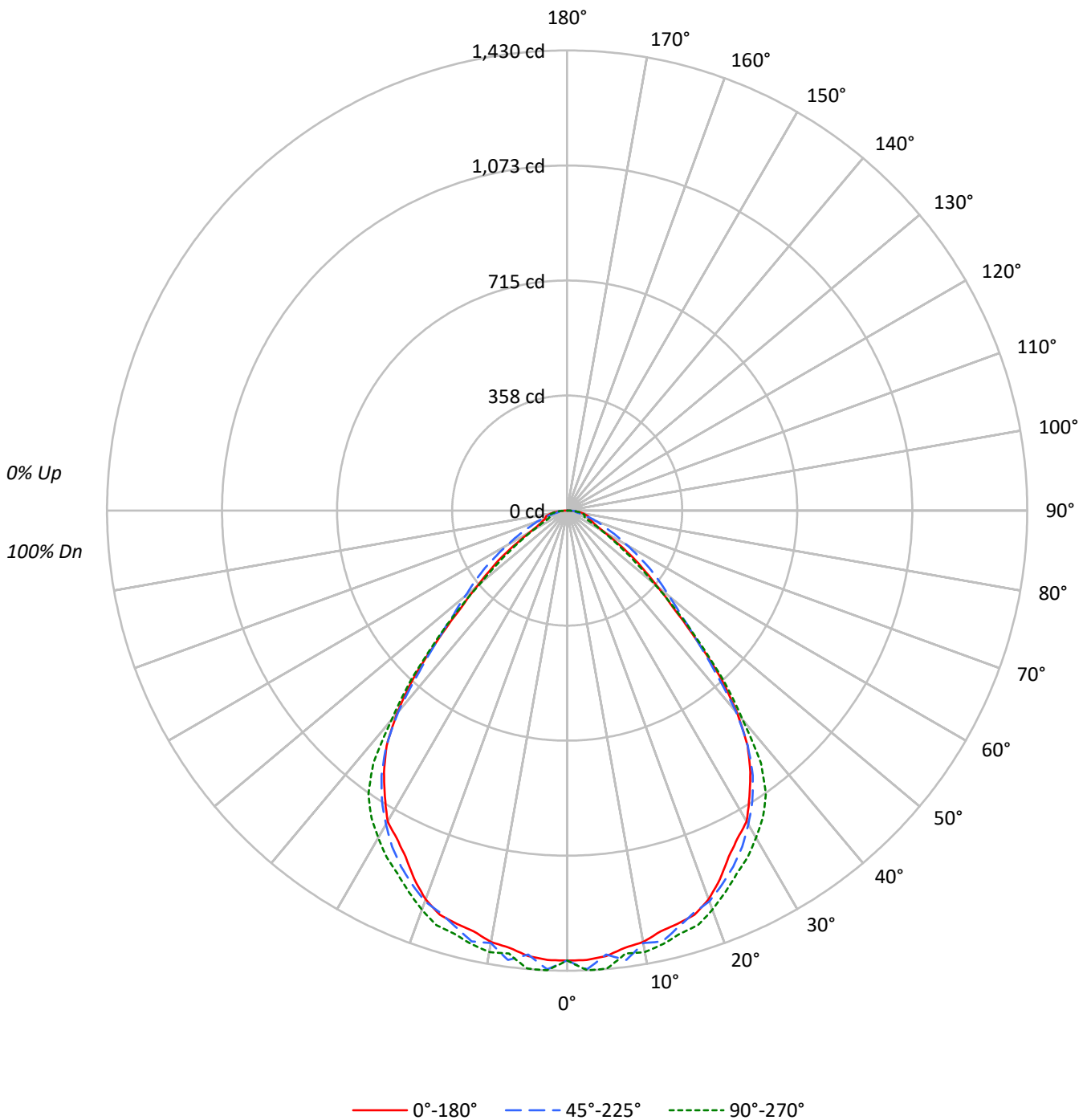
Input Watts (W): 22.971
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	111	107	103	100	108	105	102	99	101	98	96	97	95	93	93	91	90					88				
2	103	96	90	85	100	94	89	85	91	86	83	88	84	81	85	82	79					77				
3	95	86	79	74	93	85	79	73	82	77	72	79	75	71	77	73	70					68				
4	88	78	71	65	86	77	70	64	75	68	64	72	67	63	70	66	62					60				
5	82	71	63	58	80	70	63	57	68	62	57	66	61	56	64	59	56					54				
6	77	65	57	51	75	64	57	51	62	56	51	61	55	50	59	54	50					48				
7	72	60	52	46	70	59	51	46	57	51	46	56	50	46	55	49	45					44				
8	67	55	47	42	66	54	47	42	53	46	42	52	46	41	51	45	41					40				
9	63	51	43	38	62	50	43	38	49	43	38	48	42	38	47	42	38					36				
10	59	47	40	35	58	47	40	35	46	39	35	45	39	35	44	39	35					33				

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	3763	3763	3763
5°	3753	3741	3859
10°	3719	3729	3807
15°	3702	3730	3790
20°	3682	3700	3780
25°	3525	3624	3700
30°	3467	3498	3648
35°	3260	3302	3536
40°	2889	2869	2982
45°	2158	2163	2223
50°	1519	1728	1472
55°	1121	1459	1005
60°	701	1153	657
65°	572	914	459
70°	567	761	452
75°	703	558	585
80°	784	440	714
85°	781	821	800



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	133.1	5.0
10°-20°	379.1	14.1
20°-30°	561.5	20.9
30°-40°	629.0	23.4
40°-50°	462.2	17.2
50°-60°	258.3	9.6
60°-70°	144.0	5.4
70°-80°	84.6	3.2
80°-90°	31.1	1.2
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°	1073.8	40.0
0°-40°	1702.8	63.5
0°-60°	2423.3	90.3
0°-90°	2683.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2683.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1398	1398	1398	1398	1398	
5°	1390	1415	1385	1414	1429	131
15°	1329	1337	1339	1359	1360	375
25°	1187	1197	1221	1238	1246	550
35°	992	993	1005	1051	1076	615
45°	567	613	568	609	584	443
55°	239	291	311	310	214	213
65°	90	159	144	184	72	93
75°	68	96	54	108	56	68
85°	25	37	27	34	26	28
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1398.3	1398.3	1398.3	1398.3	1398.3
2.5°	1397.7	1410.3	1426.8	1428.6	1429.9
5°	1389.5	1415.4	1385.0	1413.5	1428.6
7.5°	1370.5	1386.3	1408.4	1380.0	1388.2
10°	1361.0	1364.8	1364.8	1400.2	1393.2
12.5°	1339.5	1364.8	1371.1	1364.2	1379.3
15°	1328.8	1337.0	1338.9	1359.1	1360.4
17.5°	1316.8	1314.9	1310.4	1325.0	1350.9
20°	1285.8	1278.8	1292.1	1309.8	1319.9
22.5°	1240.3	1242.2	1258.0	1272.5	1283.9
25°	1187.2	1196.7	1220.7	1237.7	1246.0
27.5°	1147.3	1161.3	1177.7	1197.9	1214.4
30°	1115.7	1114.5	1125.9	1154.9	1173.9
32.5°	1054.4	1058.8	1070.9	1105.6	1132.2
35°	992.5	993.1	1005.1	1050.6	1076.5
37.5°	921.0	916.0	922.9	972.2	989.3
40°	822.4	823.7	816.7	851.5	849.0
42.5°	707.4	717.5	681.5	727.0	723.8
45°	567.0	613.2	568.3	608.8	584.1
47.5°	447.6	515.8	478.5	508.2	462.1
50°	362.9	433.0	412.8	426.1	351.5
52.5°	297.7	354.6	361.0	364.1	274.4
55°	239.0	290.8	311.0	310.4	214.3
57.5°	176.4	236.4	259.8	269.3	162.5
60°	130.2	196.6	214.3	235.2	122.0
62.5°	104.9	172.6	177.0	206.1	92.9
65°	89.8	159.3	143.5	184.0	72.1
67.5°	79.7	148.6	116.9	164.4	61.3
70°	72.1	132.1	96.7	147.3	57.5
72.5°	70.2	112.5	74.6	131.5	56.9
75°	67.6	95.5	53.7	108.1	56.3
77.5°	58.2	81.5	38.6	83.4	52.5
80°	50.6	65.1	28.4	62.6	46.1
82.5°	39.2	49.3	25.3	47.4	37.3
85°	25.3	37.3	26.6	34.1	25.9
87.5°	12.0	20.9	19.0	18.3	13.3
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)