

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: P475990

Luminaire Tested: **22GR-LD5-24-A19/156-UNV-L835-CD1-U**

Issue Date: 02/10/2021

Test Information

Test Method: LM-79-08
Report Number: P475990
Test Lab: INNOVATION CENTER(G3)
Issue Date: 02/10/2021
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: 22GR-LD5-24-A19/156-UNV-L835-CD1-U
Description: GR 2'X2' LED TROFFER w/ A19/156 LENS
Light Source: 3500K CCT, 80 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 2311.3 lumens
Efficiency: N/A
Efficacy: 129.1 lumens/watt
Spacing Criteria (0/90/45): 1.17 / 1.22 / 1.23
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

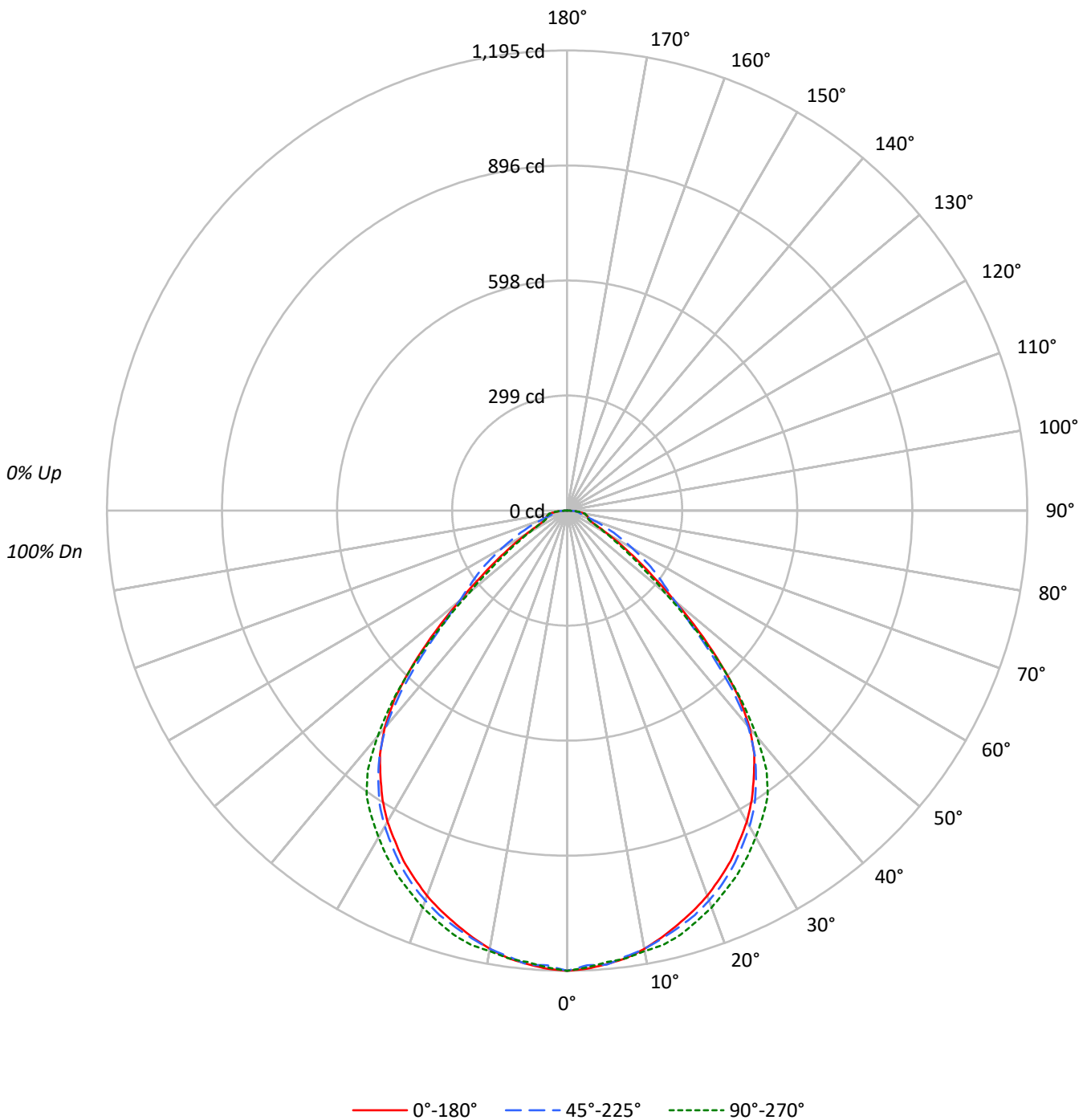
Input Watts (W): 17.9
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	101	99	100	98	95	97	95	93	93	91	90	88					88			
2	103	96	90	85	100	94	89	84	91	86	82	87	84	81	84	82	79	77					77			
3	95	86	79	74	93	85	78	73	82	76	72	79	75	71	77	73	70	68					68			
4	88	78	70	65	86	77	70	64	74	68	63	72	67	63	70	65	62	60					60			
5	82	71	63	57	80	70	62	57	68	61	56	66	60	56	64	59	55	53					53			
6	76	65	57	51	75	64	56	51	62	55	50	60	54	50	59	54	50	48					48			
7	71	59	51	46	70	58	51	46	57	50	45	56	50	45	54	49	45	43					43			
8	67	54	47	41	65	54	46	41	53	46	41	51	45	41	50	45	41	39					39			
9	63	50	43	38	61	50	43	38	49	42	38	48	42	37	47	41	37	36					36			
10	59	47	39	35	58	46	39	35	45	39	34	44	38	34	44	38	34	33					33			

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	3216	3216	3216
5°	3194	3197	3179
10°	3158	3159	3174
15°	3100	3121	3176
20°	3048	3086	3141
25°	2982	3028	3100
30°	2899	2943	3044
35°	2775	2810	2982
40°	2590	2570	2690
45°	2151	2030	2132
50°	1515	1523	1389
55°	1018	1309	916
60°	657	1051	609
65°	455	814	438
70°	457	555	454
75°	562	434	558
80°	688	502	728
85°	670	685	741



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	111.9	4.8
10°-20°	316.8	13.7
20°-30°	469.7	20.3
30°-40°	537.4	23.2
40°-50°	425.4	18.4
50°-60°	232.1	10.0
60°-70°	121.4	5.3
70°-80°	70.1	3.0
80°-90°	26.5	1.1
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°	898.4	38.9
0°-40°	1435.8	62.1
0°-60°	2093.2	90.6
0°-90°	2311.3	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2311.3	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1195	1195	1195	1195	1195	
5°	1182	1174	1184	1180	1177	112
15°	1113	1118	1120	1129	1140	314
25°	1004	1006	1020	1033	1044	462
35°	845	845	855	886	908	527
45°	565	562	533	559	560	430
55°	217	271	279	260	195	201
65°	71	144	128	137	69	77
75°	54	86	42	85	54	56
85°	22	28	22	29	24	24
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1195.2	1195.2	1195.2	1195.2	1195.2
2.5°	1190.7	1183.6	1181.8	1185.4	1187.6
5°	1182.3	1173.9	1183.6	1179.6	1177.0
7.5°	1172.5	1169.4	1167.7	1173.9	1172.5
10°	1155.7	1151.2	1156.1	1159.7	1161.4
12.5°	1135.3	1137.5	1138.4	1149.5	1154.8
15°	1112.6	1118.4	1120.2	1129.1	1140.1
17.5°	1089.6	1090.9	1101.6	1113.1	1118.4
20°	1064.3	1066.5	1077.6	1088.2	1096.7
22.5°	1034.6	1037.2	1051.0	1063.0	1070.1
25°	1004.4	1005.7	1019.9	1032.8	1043.9
27.5°	968.0	975.1	983.5	1001.3	1013.3
30°	933.0	937.4	947.2	966.7	979.6
32.5°	891.7	893.5	905.9	927.2	944.5
35°	844.7	844.7	855.3	886.4	907.7
37.5°	798.1	791.9	800.3	835.8	850.9
40°	737.3	732.9	731.6	756.0	765.7
42.5°	662.8	654.4	639.3	664.1	672.1
45°	565.2	562.1	533.3	559.4	560.3
47.5°	463.2	465.4	433.0	459.2	439.6
50°	362.0	385.1	363.8	374.9	331.8
52.5°	281.7	324.7	316.8	312.3	253.8
55°	216.9	271.1	279.0	260.0	195.2
57.5°	165.5	231.1	236.0	222.7	148.6
60°	122.0	195.2	195.2	189.0	113.1
62.5°	90.9	167.7	158.8	160.6	86.5
65°	71.4	143.7	127.8	136.6	68.8
67.5°	59.9	119.8	96.7	118.0	59.9
70°	58.1	104.3	70.5	106.5	57.7
72.5°	57.7	95.8	52.8	96.7	58.1
75°	54.1	86.5	41.7	85.2	53.7
77.5°	49.7	71.9	34.6	71.9	50.1
80°	44.4	54.6	32.4	55.9	47.0
82.5°	34.2	39.0	28.8	39.5	36.4
85°	21.7	28.4	22.2	28.8	24.0
87.5°	9.8	15.1	9.8	15.5	10.6
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)