

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: 220P149

Luminaire Tested: **APP-332**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: 220P149
Test Lab:
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: APP-332
Description: 2 X 4 Recessed Luminaire with an Specular louvers
18 cell specular parabolic louver.
Light Source: Three FO32/35K - 2800 Lumens ea. - 32 Watts ea.
Ballast/Driver: 3 lamp ALL PRO AMBIENT - L.O.B.F.=85.8%

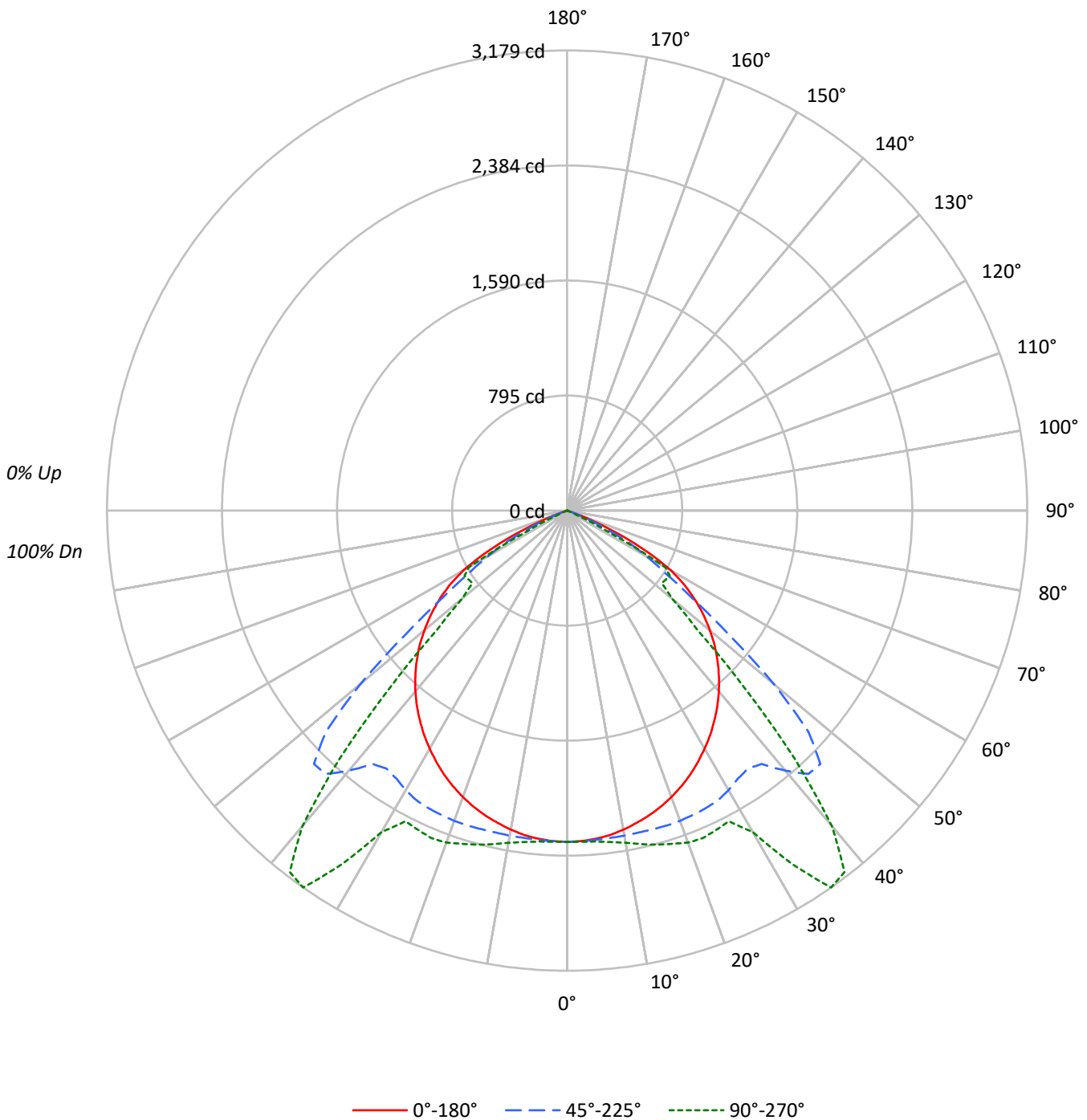
Summary

Lumens per Lamp: 2800 (3 lamps)
Luminaire Lumens: 6163.0 lumens
Efficiency: 73.4%
Efficacy: 74.3 lumens/watt
Spacing Criteria (0/90/45): 1.24 / 1.73 / 1.61
Luminous Opening: Rectangular (W 1.73' x L: 3.75' x H: 0')
CIE Type: Direct

Input Watts (W): 83
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	0	
RCR																						
0	87	87	87	87	85	85	85	85	82	82	82	78	78	78	75	75	75	73				
1	82	79	76	74	80	77	75	73	74	72	71	71	70	69	69	68	67	65				
2	75	70	66	63	74	69	65	62	67	63	61	64	62	59	62	60	58	57				
3	69	63	58	54	68	62	57	53	60	56	52	58	54	51	56	53	51	49				
4	64	56	51	46	62	55	50	46	54	49	45	52	48	45	50	47	44	43				
5	59	51	45	40	58	50	44	40	48	43	40	47	43	39	46	42	39	37				
6	55	46	40	35	53	45	39	35	44	39	35	42	38	35	41	37	34	33				
7	51	41	35	31	49	41	35	31	40	35	31	39	34	31	38	34	30	29				
8	47	38	32	28	46	37	32	28	36	31	28	35	31	27	35	30	27	26				
9	44	35	29	25	43	34	29	25	33	28	25	33	28	25	32	28	24	23				
10	41	32	26	23	40	31	26	22	31	26	22	30	25	22	29	25	22	21				

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	3798	3798	3798
5°	3791	3802	3822
10°	3771	3841	3926
15°	3746	3915	4104
20°	3718	4027	4310
25°	3683	4152	4458
30°	3638	4272	4912
35°	3591	4407	6439
40°	3533	5079	6164
45°	3449	5805	4059
50°	3325	4814	2442
55°	3133	3034	2404
60°	2751	2104	2605
65°	1700	1115	283
70°	374	184	58
75°	38	45	38
80°	38	29	29
85°	38	38	19



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ZONAL LUMENS:

CANDELA DISTRIBUTION:

Zone	Lumens	% Fixture	% Lamp		0°	22.5°	45°	67.5°	90°	Flux
0°-10°	217.9	3.5	2.6	0°	2289	2289	2289	2289	2289	
10°-20°	646.2	10.5	7.7	5°	2276	2276	2283	2291	2295	216
20°-30°	1036.6	16.8	12.3	15°	2181	2203	2279	2358	2389	615
30°-40°	1461.2	23.7	17.4	25°	2012	2088	2268	2394	2435	927
40°-50°	1480.5	24.0	17.6	35°	1773	1927	2176	2855	3179	1109
50°-60°	968.7	15.7	11.5	45°	1470	1714	2474	2032	1730	1132
60°-70°	337.7	5.5	4.0	55°	1083	1482	1049	786	831	960
70°-80°	12.2	0.2	0.1	65°	433	434	284	147	72	429
80°-90°	1.9	0.0	0.0	75°	6	7	7	7	6	17
90°-100°	0.0	0.0	0.0	85°	2	2	2	1	1	2
100°-110°	0.0	0.0	0.0	90°	0	0	0	0	0	0
110°-120°	0.0	0.0	0.0	95°	0	0	0	0	0	0
120°-130°	0.0	0.0	0.0	105°	0	0	0	0	0	0
130°-140°	0.0	0.0	0.0	115°	0	0	0	0	0	0
140°-150°	0.0	0.0	0.0	125°	0	0	0	0	0	0
150°-160°	0.0	0.0	0.0	135°	0	0	0	0	0	0
160°-170°	0.0	0.0	0.0	145°	0	0	0	0	0	0
170°-180°	0.0	0.0	0.0	155°	0	0	0	0	0	0
0°-30°	1900.7	30.8	22.6	165°	0	0	0	0	0	0
0°-40°	3362.0	54.6	40.0	175°	0	0	0	0	0	0
0°-60°	5811.2	94.3	69.2	180°	0	0	0	0	0	0
0°-90°	6163.0	100.0	73.4							
90°-120°	0.0	0.0	0.0							
90°-150°	0.0	0.0	0.0							
90°-180°	0.0	0.0	0.0							
0°-180°	6163.0	100.0	73.4							



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2289	2289	2289	2289	2289
2.5°	2285	2284	2286	2290	2290
5°	2276	2276	2283	2291	2295
7.5°	2261	2263	2281	2300	2309
10°	2238	2246	2280	2315	2330
12.5°	2211	2226	2278	2336	2360
15°	2181	2203	2279	2358	2389
17.5°	2146	2178	2282	2375	2414
20°	2106	2151	2281	2392	2441
22.5°	2061	2120	2274	2405	2449
25°	2012	2088	2268	2394	2435
27.5°	1957	2052	2256	2371	2419
30°	1899	2014	2230	2375	2564
32.5°	1839	1972	2196	2562	2895
35°	1773	1927	2176	2855	3179
37.5°	1704	1877	2207	3033	3147
40°	1631	1826	2345	2926	2846
42.5°	1552	1772	2468	2582	2329
45°	1470	1714	2474	2032	1730
47.5°	1383	1660	2259	1484	1219
50°	1288	1618	1865	1083	946
52.5°	1189	1560	1409	869	824
55°	1083	1482	1049	786	831
57.5°	966	1353	808	747	840
60°	829	1083	634	665	785
62.5°	640	776	484	492	352
65°	433	434	284	147	72
67.5°	223	194	134	33	19
70°	77	72	38	14	12
72.5°	15	19	11	9	8
75°	6	7	7	7	6
77.5°	5	5	5	4	4
80°	4	4	3	3	3
82.5°	3	3	2	2	2
85°	2	2	2	1	1
87.5°	2	1	1	1	1
90°	0	0	0	0	0
92.5°	0	0	0	0	0
95°	0	0	0	0	0
97.5°	0	0	0	0	0
100°	0	0	0	0	0
102.5°	0	0	0	0	0
105°	0	0	0	0	0
107.5°	0	0	0	0	0
110°	0	0	0	0	0



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	0	0	0	0	0
115°	0	0	0	0	0
117.5°	0	0	0	0	0
120°	0	0	0	0	0
122.5°	0	0	0	0	0
125°	0	0	0	0	0
127.5°	0	0	0	0	0
130°	0	0	0	0	0
132.5°	0	0	0	0	0
135°	0	0	0	0	0
137.5°	0	0	0	0	0
140°	0	0	0	0	0
142.5°	0	0	0	0	0
145°	0	0	0	0	0
147.5°	0	0	0	0	0
150°	0	0	0	0	0
152.5°	0	0	0	0	0
155°	0	0	0	0	0
157.5°	0	0	0	0	0
160°	0	0	0	0	0
162.5°	0	0	0	0	0
165°	0	0	0	0	0
167.5°	0	0	0	0	0
170°	0	0	0	0	0
172.5°	0	0	0	0	0
175°	0	0	0	0	0
177.5°	0	0	0	0	0
180°	0	0	0	0	0

(END OF REPORT)