

Scaled data based on original data using

LM-41-14 Approved Method for Photometric Testing Of Indoor Fluorescent Luminaires

Test Report Prepared for

Cooper Lighting Solutions

(formerly Eaton)

Brand: HALO

Report Number: 267P146

Luminaire Tested: **H578ICAT- 5030W**

Issue Date: 3/3/2020

Test Information

Test Method: LM-41-14
Report Number: 267P146
Test Lab: METALUX RESEARCH LABS
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: HALO
Catalog Number: H578ICAT- 5030W
Description: OPEN RECESSED WITH WHITE TRIM AND WHITE SCOOP, WALLWASH WITH
WHITE BAFFLE IN H57 HOUSING
Light Source: ONE COMPACT FLUORESCENT ECO TWIST LAMP
CF28T/827 28 WATTS
Ballast/Driver: -

Summary

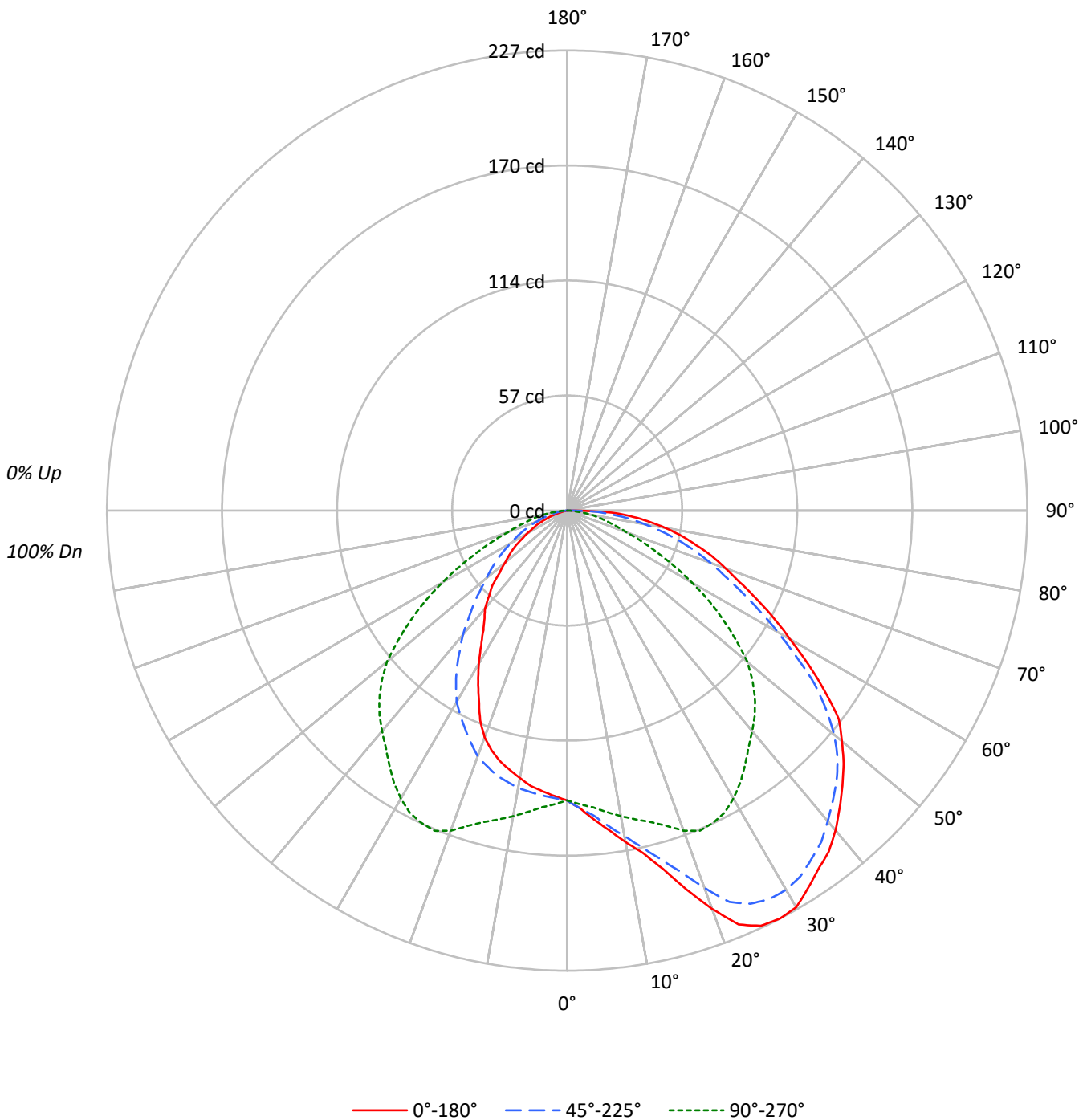
Lumens per Lamp: 1675 (1 lamp)
Luminaire Lumens: 514.0 lumens
Efficiency: 30.7%
Efficacy: 18.4 lumens/watt
Spacing Criteria (0/90/45): 1.51 / 1.56 / 1.58
Luminous Opening: Circular (Dia: 0.23' x H: 0')
CIE Type: Direct

Input Watts (W): 28
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 | 0 |
| RCR | | | | | | | | | | | | | | | | | | |
| 0 | 37 | 37 | 37 | 37 | 36 | 36 | 36 | 36 | 34 | 34 | 34 | 33 | 33 | 33 | 31 | 31 | 31 | 31 |
| 1 | 33 | 32 | 31 | 29 | 33 | 31 | 30 | 29 | 30 | 29 | 28 | 29 | 28 | 27 | 28 | 27 | 26 | 26 |
| 2 | 30 | 28 | 26 | 24 | 30 | 27 | 25 | 24 | 26 | 24 | 23 | 25 | 24 | 23 | 24 | 23 | 22 | 21 |
| 3 | 28 | 24 | 22 | 20 | 27 | 24 | 22 | 20 | 23 | 21 | 19 | 22 | 20 | 19 | 21 | 20 | 19 | 18 |
| 4 | 25 | 22 | 19 | 17 | 25 | 21 | 19 | 17 | 20 | 18 | 16 | 20 | 18 | 16 | 19 | 17 | 16 | 15 |
| 5 | 23 | 19 | 16 | 14 | 23 | 19 | 16 | 14 | 18 | 16 | 14 | 18 | 16 | 14 | 17 | 15 | 14 | 13 |
| 6 | 21 | 17 | 15 | 13 | 21 | 17 | 14 | 12 | 16 | 14 | 12 | 16 | 14 | 12 | 15 | 14 | 12 | 12 |
| 7 | 20 | 16 | 13 | 11 | 19 | 15 | 13 | 11 | 15 | 13 | 11 | 14 | 12 | 11 | 14 | 12 | 11 | 10 |
| 8 | 18 | 14 | 12 | 10 | 18 | 14 | 12 | 10 | 14 | 11 | 10 | 13 | 11 | 10 | 13 | 11 | 10 | 9 |
| 9 | 17 | 13 | 10 | 9 | 17 | 13 | 10 | 9 | 13 | 10 | 9 | 12 | 10 | 9 | 12 | 10 | 9 | 8 |
| 10 | 16 | 12 | 10 | 8 | 16 | 12 | 9 | 8 | 12 | 9 | 8 | 11 | 9 | 8 | 11 | 9 | 8 | 7 |

AVERAGE LUMINANCE (cd/sqm):

| | 0° | 90° | 180° |
|-----|-------|-------|-------|
| 0° | 37317 | 37317 | 37317 |
| 5° | 40080 | 38508 | 36412 |
| 10° | 43988 | 40543 | 35508 |
| 15° | 49441 | 42957 | 34581 |
| 20° | 58041 | 46655 | 33047 |
| 25° | 65074 | 48950 | 29658 |
| 30° | 68101 | 49418 | 26216 |
| 35° | 68812 | 48742 | 22937 |
| 40° | 70176 | 48374 | 21462 |
| 45° | 70859 | 48346 | 19191 |
| 50° | 71859 | 47094 | 16239 |
| 55° | 70521 | 42767 | 14559 |
| 60° | 66284 | 37057 | 12004 |
| 65° | 63601 | 30257 | 9880 |
| 70° | 63329 | 23653 | 6867 |
| 75° | 66546 | 20166 | 3025 |
| 80° | 73638 | 18034 | 0 |
| 85° | 92820 | 11977 | 0 |



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ZONAL LUMENS:

| Zone | Lumens | % Fixture | % Lamp |
|-----------|--------|-----------|--------|
| 0°-10° | 14.1 | 2.7 | 0.8 |
| 10°-20° | 44.8 | 8.7 | 2.7 |
| 20°-30° | 76.6 | 14.9 | 4.6 |
| 30°-40° | 94.3 | 18.3 | 5.6 |
| 40°-50° | 97.8 | 19.0 | 5.8 |
| 50°-60° | 84.5 | 16.4 | 5.0 |
| 60°-70° | 57.1 | 11.1 | 3.4 |
| 70°-80° | 32.7 | 6.4 | 2.0 |
| 80°-90° | 12.0 | 2.3 | 0.7 |
| 90°-100° | 0.0 | 0.0 | 0.0 |
| 100°-110° | 0.0 | 0.0 | 0.0 |
| 110°-120° | 0.0 | 0.0 | 0.0 |
| 120°-130° | 0.0 | 0.0 | 0.0 |
| 130°-140° | 0.0 | 0.0 | 0.0 |
| 140°-150° | 0.0 | 0.0 | 0.0 |
| 150°-160° | 0.0 | 0.0 | 0.0 |
| 160°-170° | 0.0 | 0.0 | 0.0 |
| 170°-180° | 0.0 | 0.0 | 0.0 |
| 0°-30° | 135.6 | 26.4 | 8.1 |
| 0°-40° | 229.9 | 44.7 | 13.7 |
| 0°-60° | 412.2 | 80.2 | 24.6 |
| 0°-90° | 514.0 | 100.0 | 30.7 |
| 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° | 514.0 | 100.0 | 30.7 |

CANDELA DISTRIBUTION:

| | 0° | 45° | 90° | 135° | 180° | Flux |
|-----|-----|-----|-----|------|------|------|
| 0° | 143 | 143 | 143 | 143 | 143 | |
| 5° | 153 | 151 | 147 | 141 | 139 | 15 |
| 15° | 183 | 178 | 159 | 135 | 128 | 53 |
| 25° | 226 | 214 | 170 | 119 | 103 | 103 |
| 35° | 216 | 210 | 153 | 95 | 72 | 136 |
| 45° | 192 | 188 | 131 | 65 | 52 | 148 |
| 55° | 155 | 149 | 94 | 42 | 32 | 138 |
| 65° | 103 | 95 | 49 | 24 | 16 | 103 |
| 75° | 66 | 57 | 20 | 10 | 3 | 70 |
| 85° | 31 | 22 | 4 | 1 | 0 | 32 |
| 90° | 0 | 0 | 0 | 0 | 0 | |



TEST NUMBER: 267P146

CATALOG NUMBER: H578ICAT- 5030W

CANDELA DISTRIBUTION (FULL):

| | 0° | 22.5° | 45° | 67.5° | 90° | 112.5° | 135° | 157.5° | 180° |
|-------|-----|-------|-----|-------|-----|--------|------|--------|------|
| 0° | 143 | 143 | 143 | 143 | 143 | 143 | 143 | 143 | 143 |
| 2.5° | 147 | 147 | 147 | 146 | 145 | 144 | 142 | 142 | 141 |
| 5° | 153 | 152 | 151 | 150 | 147 | 144 | 141 | 140 | 139 |
| 7.5° | 159 | 159 | 157 | 154 | 150 | 145 | 140 | 138 | 137 |
| 10° | 166 | 166 | 163 | 159 | 153 | 145 | 139 | 135 | 134 |
| 12.5° | 173 | 172 | 170 | 164 | 156 | 146 | 137 | 133 | 131 |
| 15° | 183 | 181 | 178 | 171 | 159 | 146 | 135 | 130 | 128 |
| 17.5° | 196 | 193 | 187 | 179 | 163 | 146 | 132 | 126 | 124 |
| 20° | 209 | 206 | 198 | 188 | 168 | 145 | 129 | 121 | 119 |
| 22.5° | 221 | 218 | 209 | 194 | 171 | 144 | 124 | 115 | 112 |
| 25° | 226 | 224 | 214 | 196 | 170 | 142 | 119 | 108 | 103 |
| 27.5° | 227 | 226 | 216 | 195 | 168 | 139 | 114 | 100 | 95 |
| 30° | 226 | 225 | 216 | 192 | 164 | 135 | 109 | 92 | 87 |
| 32.5° | 221 | 221 | 214 | 189 | 159 | 130 | 102 | 85 | 79 |
| 35° | 216 | 216 | 210 | 185 | 153 | 125 | 95 | 77 | 72 |
| 37.5° | 212 | 211 | 206 | 181 | 147 | 119 | 87 | 70 | 67 |
| 40° | 206 | 205 | 200 | 176 | 142 | 112 | 80 | 65 | 63 |
| 42.5° | 199 | 199 | 194 | 172 | 137 | 105 | 72 | 60 | 57 |
| 45° | 192 | 192 | 188 | 167 | 131 | 97 | 65 | 55 | 52 |
| 47.5° | 185 | 184 | 181 | 161 | 124 | 89 | 58 | 49 | 45 |
| 50° | 177 | 177 | 172 | 153 | 116 | 81 | 52 | 44 | 40 |
| 52.5° | 169 | 167 | 161 | 142 | 105 | 72 | 47 | 38 | 36 |
| 55° | 155 | 155 | 149 | 130 | 94 | 64 | 42 | 34 | 32 |
| 57.5° | 141 | 141 | 134 | 115 | 83 | 55 | 37 | 30 | 27 |
| 60° | 127 | 127 | 120 | 101 | 71 | 48 | 32 | 26 | 23 |
| 62.5° | 115 | 114 | 107 | 88 | 60 | 40 | 28 | 22 | 19 |
| 65° | 103 | 102 | 95 | 76 | 49 | 34 | 24 | 18 | 16 |
| 67.5° | 92 | 91 | 84 | 65 | 40 | 28 | 20 | 14 | 12 |
| 70° | 83 | 82 | 75 | 55 | 31 | 23 | 16 | 11 | 9 |
| 72.5° | 75 | 73 | 66 | 47 | 25 | 19 | 13 | 7 | 6 |
| 75° | 66 | 65 | 57 | 40 | 20 | 15 | 10 | 5 | 3 |
| 77.5° | 58 | 56 | 48 | 32 | 16 | 12 | 7 | 3 | 1 |
| 80° | 49 | 47 | 39 | 26 | 12 | 8 | 5 | 2 | 0 |
| 82.5° | 40 | 38 | 31 | 19 | 8 | 6 | 3 | 1 | 0 |
| 85° | 31 | 29 | 22 | 12 | 4 | 3 | 1 | 0 | 0 |
| 87.5° | 22 | 21 | 15 | 7 | 2 | 1 | 0 | 0 | 0 |
| 90° | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |

(END OF REPORT)