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Photometric Test Report

Relevant Standards
IES LM-79-2008, ANSI C82.77-10-2014, UL 1598-2008

Prepared For
Rig-A-Lite Partnership Ltd
8500 Hansen Rd
Houston, TX 77075-1006

Catalog Number
CROLU24F823CRO4DA

Order Number
14703809
Test Number
14703809.01A

Revision of Test Number 14703809.01 on:

2023-03-10
Test Date

2023-03-08

Prepared By

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Approved By

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The results contained in this report pertain only to the tested sample.
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Laboratory results may not be representative of field performance
Ballast factors have not been applied



Luminaire Description: White steel housing, frosted lens enclosure
Lamp: 504 white LEDs
Mounting: Recessed
Ballast/Driver: Three Advance XI075C200V054BST1

Luminaire



Luminaire Characteristics

Luminous Length: 43.50 in.
Luminous Width: 19.50 in.

Summary of Results

Distribution

Total Luminaire Output:	22610 Lumens
Luminaire Efficacy:	120.3 lm/w
Maximum Candela:	9094 Candela

Electrical Data at 120 VAC

Test Temperature:	25.3 °C
Voltage:	120.0 VAC
Current:	1.572 A
Power:	188.0 W
Power Factor:	0.996
Frequency:	60 Hz
Current THD:	8.24 %

In-Situ

LED Temperature:	60.5 °C
Driver Temperature:	61.1 °C
Measured LED Current:	0.1173 A

Temperature is offset to an ambient temperature of 25°C as described in UL1598-2008.

Distribution - Goniophotometer

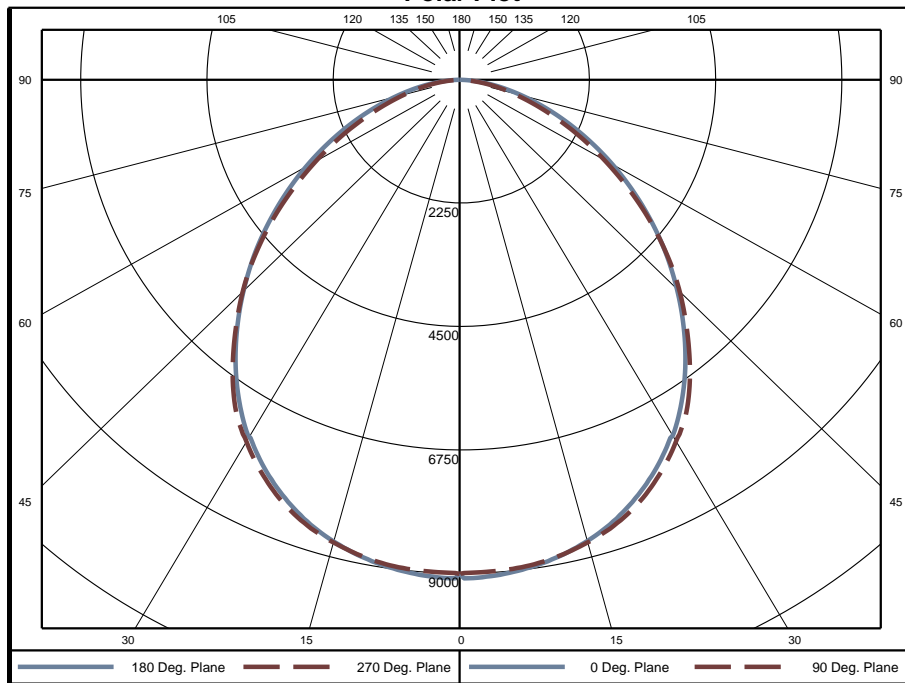
Distribution Test Conditions

Temperature	Voltage	Current	Power	Power Factor	Frequency	Current THD
25.3 °C	120.0 VAC	1.572 A	188.0 W	0.996	60 Hz	8.24 %

Summary of Results

Spacing Criteria	Total Lumen Output:	22610 Lumens
0-180: 1.23	Luminaire Efficacy:	120.3 lm/w
90-270: 1.26	Maximum Candela:	9094 Candela
Corrected UGR (Room Dimension: X=4H, Y=8H, Reflectances: 70/50/20%, S/H: 1)		
Crosswise: 24	Endwise: 23.5	

Polar Plot



Zonal Lumen Summary

Zone	Lumens	% of Luminaire	Zone	Lumens	% of Luminaire	Zone	Lumens	% of Luminaire
0-5	215	1.0%	60-65	1294	5.7%	120-125	0	0.0%
5-10	638	2.8%	65-70	994	4.4%	125-130	0	0.0%
10-15	1041	4.6%	70-75	706	3.1%	130-135	0	0.0%
15-20	1408	6.2%	75-80	450	2.0%	135-140	0	0.0%
20-25	1721	7.6%	80-85	230	1.0%	140-145	0	0.0%
25-30	1963	8.7%	85-90	49	0.2%	145-150	0	0.0%
30-35	2127	9.4%	90-95	0	0.0%	150-155	0	0.0%
35-40	2183	9.7%	95-100	0	0.0%	155-160	0	0.0%
40-45	2146	9.5%	100-105	0	0.0%	160-165	0	0.0%
45-50	2029	9.0%	105-110	0	0.0%	165-170	0	0.0%
50-55	1837	8.1%	110-115	0	0.0%	170-175	0	0.0%
55-60	1583	7.0%	115-120	0	0.0%	175-180	0	0.0%

Zone	Lumens	% of Luminaire
0-40	11296	50.0%
0-60	18891	83.6%
0-90	22614	100.0%
90-180	0	0.0%

Candela Tabulation
Horizontal Angle (Degrees)

Vertical Angle (Degrees)	0	22.5	45	67.5	90	112.5	135	157.5	180	202.5	225	247.5	270	292.5	315	337.5
	0	9010	9010	9010	9010	9010	9010	9010	9010	9010	9010	9010	9010	9010	9010	9010
	5	9045	8987	8941	8964	8972	8964	8941	8987	9045	8987	8941	8964	8972	8964	8941
	10	8918	8865	8835	8874	8900	8874	8835	8865	8918	8865	8835	8874	8900	8874	8835
	15	8701	8656	8643	8701	8734	8701	8643	8656	8701	8656	8643	8701	8734	8701	8643
	20	8390	8352	8360	8441	8489	8441	8360	8352	8390	8352	8360	8441	8489	8441	8360
	25	7973	7944	7970	8057	8115	8057	7970	7944	7973	7944	7970	8057	8115	8057	7970
	30	7487	7453	7473	7569	7629	7569	7473	7453	7487	7453	7473	7569	7629	7569	7473
	35	6856	6829	6871	6977	7049	6977	6871	6829	6856	6829	6871	6977	7049	6977	6871
	40	6144	6129	6150	6226	6285	6226	6150	6129	6144	6129	6150	6226	6285	6226	6150
	45	5392	5376	5392	5452	5503	5452	5392	5376	5392	5376	5392	5452	5503	5452	5392
	50	4628	4616	4619	4641	4670	4641	4619	4616	4628	4616	4619	4641	4670	4641	4619
	55	3856	3847	3821	3798	3809	3798	3821	3847	3856	3847	3821	3798	3809	3798	3821
	60	3107	3089	3038	2979	2974	2979	3038	3089	3107	3089	3038	2979	2974	2979	3038
	65	2393	2371	2304	2231	2222	2231	2304	2371	2393	2371	2304	2231	2222	2231	2304
	70	1740	1714	1643	1569	1549	1569	1643	1714	1740	1714	1643	1569	1549	1569	1643
	75	1162	1139	1075	1017	1000	1017	1075	1139	1162	1139	1075	1017	1000	1017	1075
	80	680	662	618	582	568	582	618	662	680	662	618	582	568	582	618
	85	275	265	240	206	191	206	240	265	275	265	240	206	191	206	240
	90	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	95	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	105	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	110	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	115	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	120	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	125	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	130	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	135	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	140	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	145	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	150	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	155	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	160	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	165	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	170	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	175	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	180	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Average Luminance (cd/m²)
Horizontal Angle (Degrees)

Vertical Angle (Degrees)	0	45	90
	0	16460	16460
	45	13930	14220
	55	12290	12140
	65	10350	9606
	75	8205	7058
	85	5759	4003



Coefficients of Utilization - Zonal Cavity Method

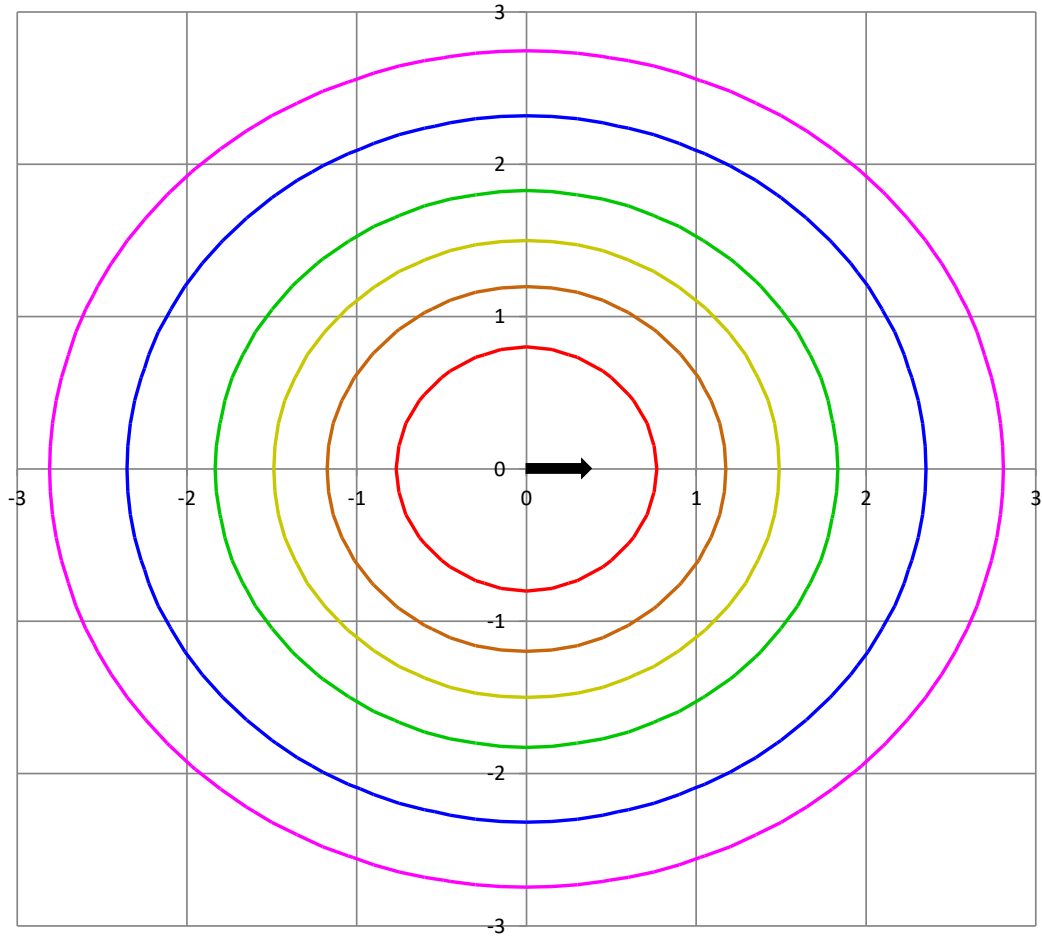
Effective Floor Cavity Reflectance 20%																		
Ceiling Cavity Reflectance	80				70				50			30			10			0
Wall Reflectance	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10	0
Room Cavity Ratio (RCR)	** Values are expressed as percent of total lumen output delivered to the task surface **																	
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100
1	110	105	101	98	107	103	99	96	99	96	93	95	92	90	91	89	87	85
2	100	93	86	81	98	91	85	80	87	82	78	84	80	76	81	77	74	72
3	92	82	74	68	89	80	73	67	77	71	66	75	69	65	72	68	64	62
4	84	73	65	58	82	72	64	58	69	62	57	67	61	56	65	60	55	53
5	78	65	57	50	76	64	56	50	62	55	50	60	54	49	58	53	49	47
6	72	59	50	44	70	58	50	44	56	49	44	55	48	43	53	47	43	41
7	67	54	45	39	65	53	45	39	51	44	39	50	43	39	49	43	38	36
8	62	49	41	35	61	48	41	35	47	40	35	46	39	35	45	39	34	33
9	58	45	37	32	57	45	37	32	44	36	32	42	36	31	41	36	31	29
10	55	42	34	29	53	41	34	29	40	33	29	39	33	29	38	33	28	27

Beam and Field Information	
CIE Type:	Direct
Center Beam Intensity:	9010 Candela
Central Cone Intensity:	8998 Candela
Beam Flux:	15779.1 Lumens
Beam Angle (0-180):	101.6 Degrees
Beam Angle (90-270):	101.9 Degrees
Field Angle (0-180):	155.2 Degrees
Field Angle (90-270):	152.1 Degrees

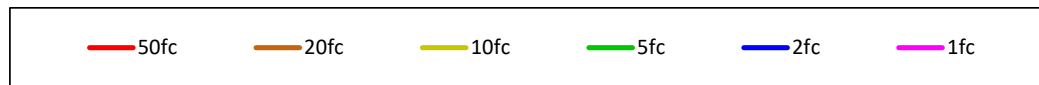
Cone of Light Tabulation			
Mounting Height (Feet)		Footcandles at Nadir	Diameter (Feet)
4.00		563	4.95
6.00		250	7.43
8.00		141	9.90
10.0		90.1	12.4
12.0		62.6	14.9
14.0		46.0	17.3
16.0		35.2	19.8

ISOFootcandle Plot

Mounting Height - 8 Feet



Grid Lines in Units of Mounting Height



In-Situ Test

In-Situ Test Conditions

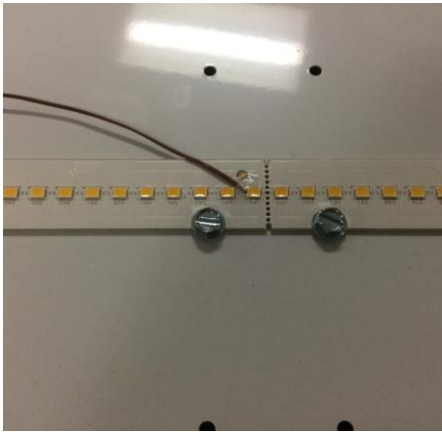
Temperature	Voltage	Current	Power	Power Factor	Frequency	Current THD
23.8 °C	120.0 VAC	N/A	N/A	N/A	60 Hz	N/A

Summary of Results

LED Temperature: 60.5 °C
 Driver Temperature: 61.1 °C
 Measured LED Current: 0.1173 A

Temperatures are offset to an ambient temperature of 25°C as described in UL1598-2008

LED Temperature Location



Thermocouple Reference



Driver Temperature Location





Attachment A

Amended Report Documentation

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