



REPORT

545 E. Algonquin Rd., Arlington Heights, IL 60005

Project No. G101709870

Date: July 2, 2014

REPORT NO. 101709870CHI-001

TEST OF ONE 13" DIAMETER 22" HIGH LED CYLINDER WITH 20 DEGREE REFLECTOR

MODEL NO. SXCLR4325
LED MODEL NO. CREE CXA2540
DRIVER MODEL NO. ACE ELECTRONICS AC-60CD1.4UV -TS

RENDERED TO

ESCO LIGHTING, INC.
3254 N. KILBOURN
CHICAGO, IL 60641

TEST: Electrical and Photometric tests as required to the IESNA test standard.

STATEMENT OF LIMITATION: This report must not be used by the client to claim product certification, approval, or endorsement by NVLAP, NIST, or any agency of the federal government.

AUTHORIZATION: The testing performed was authorized by signed quote number 500532058.

STANDARDS USED: The following American National Standards or Illuminating Engineering Society of North America Test Guides were used in part or totally to test each specimen:

IESNA LM-79 - 2008: Electrical and Photometric Measurements of Solid State Lighting

DESCRIPTION OF SAMPLE: The client submitted one production sample of model number SXCLR4325. The sample was received by Intertek on May 8, 2014, in undamaged condition and one sample was tested as received. The sample designation was 05082014081606.

DATE OF TEST: July 2, 2014

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SUMMARY

Model No.:	SXCLR4325
Description:	13" Diameter 22" High LED Cylinder with 20 Degree Reflec

Criteria	Result
Total Lumen Output (Lumens)	9246
Total Power (W)	126.1
Luminaire Efficacy (LPW)	73.32
Power Factor	0.997

EQUIPMENT LIST

Equipment Used	Model Number	Control Number	Last Date Calibrated	Calibration Due Date
Yokogawa Power Meter	WT210	146919	09/06/13	09/06/14
Omega Newport Thermometer	DPI8-C24	146920	12/04/13	12/04/14
LSI High Speed Mirror Goniometer	6440T	146928	VBU	VBU
Newport Hygrometer	iServer	146956	01/02/14	01/02/15
Elgar, AC Power Supply	CW1251P	146918	VBU	VBU
Cole-Parmer Triple Timer	94440-00	CHI0041	04/01/14	04/01/15

TEST METHODS

Seasoning in Sample Orientation – LED Products

No seasoning was performed in accordance with IESNA LM-79.

Photometric and Electrical Measurements – Distribution Method

A LSI Type C High Speed Model 6440 Mirror Goniometer was used to measure the intensity (candelas) at each angle of distribution for each sample.

Ambient temperature was measured equal to the height of the sample mounted on the Goniometer equipment. Each sample was operated at input rated voltage in its designated orientation. Each sample was allowed to stabilize for at least thirty minutes before measurements were made. Electrical measurements including voltage, current, and power were measured using the Xitron or Yokogawa Power Analyzer.

Some graphics were created with Photometrics Plus software.

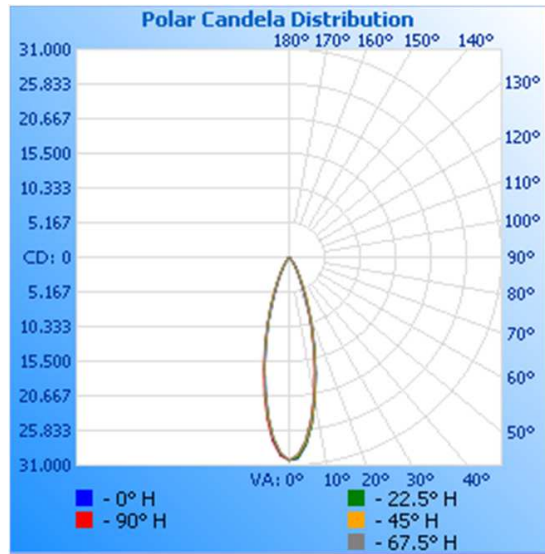
RESULTS OF TEST

Photometric and Electrical Measurements at Ambient Temperature (25°C +/- 1°C) – Distribution Method

Intertek Sample No.	Base Orientation	Input Voltage {Vac}	Input Current (mA)	Input Power (Watts)	Input Power Factor	Absolute Luminous Flux (Lumens)	Lumen Efficacy (Lumens Per Watt)
05082014081606	UP	120.0	1053	126.1	0.997	9246	73.32

Intensity (Candlepower) Summary at 25°C - Candelas

Angle	0	22.5	45	67.5	90
0	30221	30221	30221	30221	30221
5	28030	28002	27628	27362	27517
10	21480	21545	21410	20959	20804
15	14323	14298	14075	13800	13659
20	8259	8541	8641	8236	7902
25	4164	4598	4848	4491	4045
30	2306	2270	2193	2236	2189
35	1191	1090	1062	1069	1106
40	422	521	551	508	397
45	159	235	284	217	148
50	84	117	152	103	76
55	58	78	101	68	51
60	49	62	98	56	41
65	42	52	74	46	35
70	31	45	50	36	29
75	22	32	38	26	24
80	16	21	27	18	15
85	9	10	12	8	7
90	0	0	0	0	0



Coefficients Of Utilization - Zonal Cavity Method

Effective Floor Cavity Reflectance 0.20

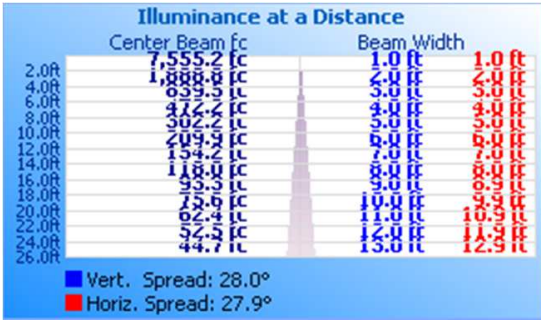
RC	80				70				50			30			10			0
R/W	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10	0
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100
1	114	112	110	108	112	110	108	106	106	104	103	102	101	100	99	98	97	95
2	110	106	103	100	108	104	101	99	101	99	96	98	96	94	95	94	92	91
3	106	101	96	93	104	99	95	92	97	94	91	94	92	90	92	90	88	87
4	102	96	91	88	100	95	91	87	93	89	86	91	88	85	89	86	84	83
5	98	91	87	83	97	91	86	83	89	85	82	87	84	82	86	83	81	80
6	95	88	83	79	93	87	82	79	85	82	79	84	81	78	83	80	78	76
7	91	84	79	76	90	83	79	76	82	78	75	81	78	75	80	77	75	73
8	88	81	76	73	87	80	76	73	79	75	72	78	75	72	78	74	72	71
9	85	78	73	70	85	77	73	70	77	73	70	76	72	69	75	72	69	68
10	83	75	70	67	82	75	70	67	74	70	67	73	70	67	73	69	67	66

RESULTS OF TEST (cont'd)

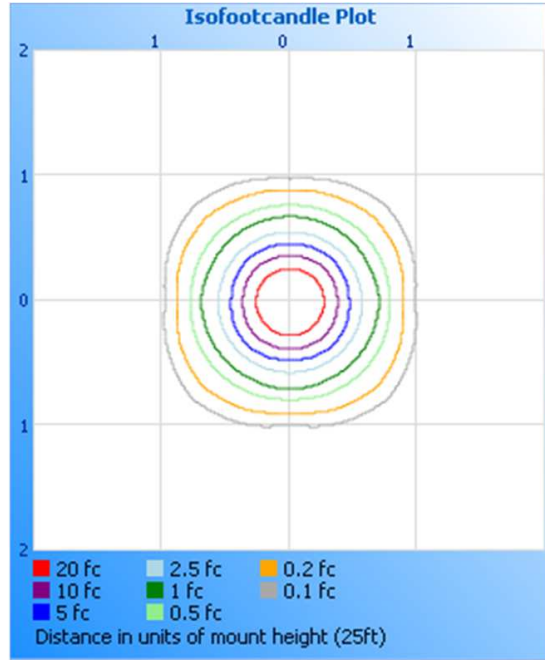
Illumination Plots

Mounting Height: 25 ft.

Illuminance - Cone of Light



Isoillumination Plot



Zonal Lumen Summary and Percentages at 25°C

Zone	Lumens	% Luminaire
0-30	8210	88.8
0-40	8902	96.3
0-60	9155	99.0
60-90	91.2	1.0
0-90	9246	100.0
90-180	0.0	0.0
0-180	9246	100.0

Zonal Lumens and Percentages at 25°C

Zone	Lumens	% Luminaire
0-10	2386	25.8
10-20	3771	40.8
20-30	2053	22.2
30-40	692.4	7.5
40-50	183.8	2.0
50-60	68.7	0.7
60-70	50.9	0.6
70-80	30.4	0.3
80-90	9.9	0.1


PICTURE (not to scale)



CONCLUSION

The results tabulated in this report are representative of the actual test samples submitted for this report only. The data is provided to the client for further evaluation. Compliance to the referenced specification requirements was not determined in this report.

In Charge Of Tests:



Kenneth Prettyman
Technician
Lighting Division

Attachment: None

Report Reviewed By:



Jeffrey Davis
Engineering Manager
Lighting Division