

Cooper Lighting Solutions Photometric Lab
1121 Highway 74 South
Peachtree City, GA 30269



Scaled data based on original data using
LM-79-2019 Approved Method: Electrical and Photometric Measurements of Solid-
State Lighting Products

Test Report Prepared for
Cooper Lighting Solutions

Brand: CORELITE

Report Number: P1191251

Luminaire Tested: SQ2-FA-050U-050D-L830-UNV-STD-W-4

Issue Date: 9/23/2025

Test Information

Test Method: LM-79-2019
Report Number: P1191251
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2104-222-9, G2-2502-345-2)
Test Lab: INNOVATION CENTER
Issue Date: 9/23/2025
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: CORELITE
Catalog Number: SQ2-FA-050U-050D-L830-UNV-STD-W-4
Description: CORELITE SQ2 LED LUMINAIRE
FROSTED CONTINUOUS ASYMMETRIC ROLL LENS
DOWNLIGHT 500 LUMENS PER FOOT
UPLIGHT 500 LUMENS PER FOOT
Light Source: 3000K CCT, 80 CRI LEDS
Ballast/Driver: -

Summary

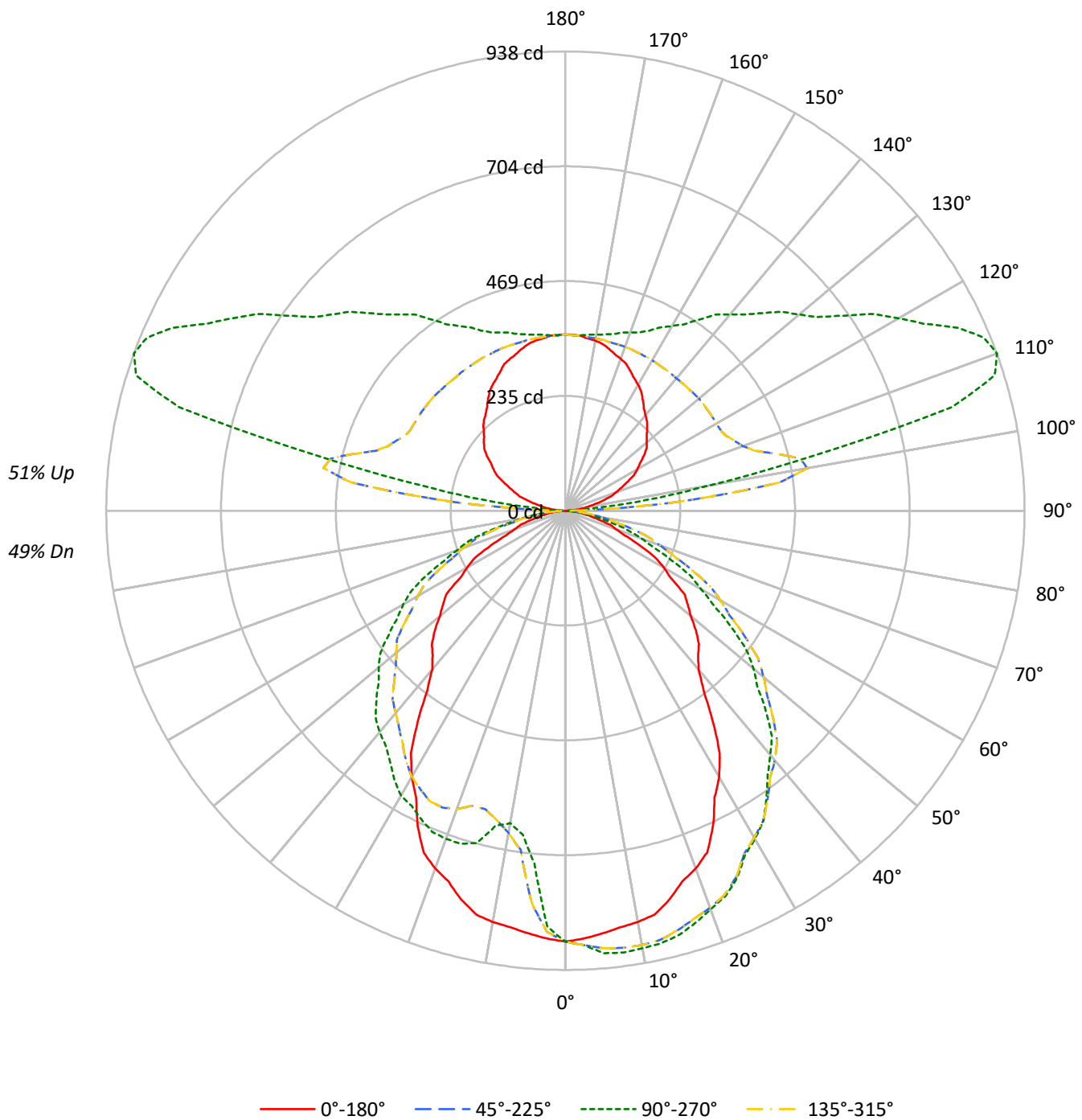
Lumens per Lamp: N/A
Luminaire Lumens: 4418.8 lumens
Efficiency: N/A
Efficacy: 135.5 lumens/watt
Spacing Criteria (0/90/45): 1.08 / 1.23 / 1.34
Luminous Opening: Rectangular (W 0.17' x L: 4' x H: 0')
CIE Type: General Diffuse

Input Watts (W): 32.6
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: 24 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
RW	70	50	30	10	70	50	30	10	50	30	10		50	30	10		50
RCR																	
0	107	107	107	107	99	99	99	99	83	83	83		69	69	69		56
1	98	94	90	86	90	86	83	80	73	71	68		61	59	58		49
2	89	82	76	71	82	76	70	66	64	60	57		53	51	48		44
3	81	72	65	59	75	67	60	55	56	52	48		47	44	41		39
4	74	64	56	50	68	59	52	47	50	45	41		42	38	35		34
5	68	57	49	43	63	53	45	40	45	39	35		38	33	30		31
6	63	51	43	37	58	47	40	35	40	35	31		34	30	26		28
7	58	46	38	32	53	43	36	30	37	31	27		31	27	23		26
8	54	42	34	29	50	39	32	27	33	28	24		28	24	21		24
9	50	38	30	25	46	35	29	24	31	25	21		26	22	19		22
10	47	35	28	23	43	32	26	22	28	23	19		24	20	17		20

AVERAGE LUMINANCE (cd/sqm):

	0°	90°	180°	270°
0°	14210	14210	14210	14210
5°	14044	14707	14044	11721
10°	13982	14877	13982	10626
15°	13742	14997	13742	11746
20°	13364	14888	13364	12251
25°	12702	14767	12702	12397
30°	11703	14438	11703	12529
35°	10354	14121	10354	12305
40°	8916	13734	8916	12440
45°	8802	13241	8802	12463
50°	8397	12597	8397	12509
55°	8355	11620	8355	12389
60°	7492	10356	7492	12339
65°	6388	9123	6388	11989
70°	5155	7728	5155	11113
75°	4467	6382	4467	10212
80°	3803	4761	3803	8247
85°	2519	2519	2519	5057

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 45°

Vertical Angle: 45°

Luminance: 13709 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	79.2	1.8
10°-20°	221.3	5.0
20°-30°	336.1	7.6
30°-40°	394.5	8.9
40°-50°	400.3	9.1
50°-60°	350.7	7.9
60°-70°	248.8	5.6
70°-80°	128.1	2.9
80°-90°	27.3	0.6
90°-100°	143.2	3.2
100°-110°	454.2	10.3
110°-120°	445.3	10.1
120°-130°	362.4	8.2
130°-140°	295.5	6.7
140°-150°	230.4	5.2
150°-160°	166.0	3.8
160°-170°	101.4	2.3
170°-180°	34.2	0.8
0°-30°	636.5	14.4
0°-40°	1031.0	23.3
0°-60°	1782.0	40.3
0°-90°	2186.3	49.5
90°-120°	1042.7	23.6
90°-150°	1930.9	43.7
90°-180°	2233.0	50.5
0°-180°	4418.8	100.0

CANDELA DISTRIBUTION:

	0°	90°	180°	270°	360°	Flux
0°	880	880	880	880	880	
5°	866	907	866	723	866	82
15°	822	897	822	703	822	231
25°	713	829	713	696	713	325
35°	525	716	525	624	525	327
45°	386	580	386	546	386	295
55°	297	413	297	440	297	257
65°	167	239	167	314	167	167
75°	72	102	72	164	72	77
85°	14	14	14	27	14	17
90°	0	3	0	3	0	1
95°	19	62	19	62	19	22
105°	79	817	79	817	79	83
115°	141	884	141	884	141	139
125°	196	694	196	694	196	174
135°	236	571	236	571	236	182
145°	276	476	276	476	276	173
155°	314	406	314	406	314	145
165°	343	373	343	373	343	97
175°	358	360	358	360	358	34
180°	360	360	360	360	360	

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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°	202.5°	225°
0°	880.1	880.1	880.1	880.1	880.1	880.1	880.1	880.1	880.1	880.1	880.1
2.5°	874.7	888.0	888.3	888.3	888.3	888.3	888.3	888.0	874.7	874.7	861.0
5°	866.5	889.8	897.2	900.7	907.4	900.7	897.2	889.8	866.5	856.5	801.7
7.5°	858.3	889.6	900.6	906.8	910.1	906.8	900.6	889.6	858.3	813.6	698.6
10°	852.8	889.5	900.6	904.1	907.4	904.1	900.6	889.5	852.8	762.8	668.6
12.5°	844.6	884.0	897.9	901.3	904.7	901.3	897.9	884.0	844.6	717.2	646.8
15°	822.1	875.5	886.9	893.8	897.2	893.8	886.9	875.5	822.1	678.7	631.1
17.5°	794.1	858.9	874.0	880.2	882.8	880.2	874.0	858.9	794.1	644.1	631.8
20°	777.8	847.8	863.1	866.5	866.5	866.5	863.1	847.8	777.8	627.7	648.1
22.5°	755.9	834.0	849.4	850.2	852.8	850.2	849.4	834.0	755.9	608.5	656.3
25°	713.0	803.0	825.5	822.3	828.9	822.3	825.5	803.0	713.0	582.9	655.0
27.5°	660.4	773.8	790.1	793.5	793.5	793.5	790.1	773.8	660.4	557.7	641.3
30°	627.7	754.4	771.0	774.4	774.4	774.4	771.0	754.4	627.7	541.0	627.7
32.5°	586.7	737.5	751.8	752.5	752.5	752.5	751.8	737.5	586.7	524.0	605.8
35°	525.3	708.8	719.8	719.7	716.4	719.7	719.8	708.8	525.3	498.7	579.9
37.5°	463.9	672.1	687.0	682.2	678.8	682.2	687.0	672.1	463.9	472.6	558.1
40°	423.0	649.8	665.2	654.9	651.6	654.9	665.2	649.8	423.0	453.0	539.0
42.5°	401.2	625.3	640.6	627.6	624.3	627.6	640.6	625.3	401.2	433.9	522.6
45°	385.5	585.6	600.4	586.6	579.9	586.6	600.4	585.6	385.5	405.5	494.6
47.5°	361.6	537.7	558.8	538.1	531.5	538.1	558.8	537.7	361.6	376.3	469.4
50°	334.3	507.8	528.7	508.1	501.5	508.1	528.7	507.8	334.3	354.3	450.3
52.5°	315.2	478.0	496.0	472.7	466.0	472.7	496.0	478.0	315.2	327.2	433.9
55°	296.8	433.5	446.9	422.8	412.8	422.8	446.9	433.5	296.8	286.8	402.5
57.5°	253.8	383.9	397.8	370.2	358.9	370.2	397.8	383.9	253.8	245.1	369.8
60°	232.0	348.7	365.0	337.3	320.7	337.3	365.0	348.7	232.0	215.3	348.0
62.5°	207.4	310.8	332.3	304.6	287.9	304.6	332.3	310.8	207.4	196.1	323.4
65°	167.2	257.2	283.1	255.5	238.8	255.5	283.1	257.2	167.2	173.8	283.1
67.5°	131.0	208.4	237.4	207.1	193.8	207.1	237.4	208.4	131.0	153.0	246.3
70°	109.2	175.9	204.7	177.1	163.7	177.1	204.7	175.9	109.2	139.2	221.7
72.5°	95.5	146.2	177.4	147.1	136.5	147.1	177.4	146.2	95.5	125.5	191.7
75°	71.6	101.7	136.5	109.0	102.3	109.0	136.5	101.7	71.6	101.7	150.1
77.5°	51.9	65.9	96.2	72.9	70.3	72.9	96.2	65.9	51.9	76.5	109.2
80°	40.9	44.3	71.6	51.2	51.2	51.2	71.6	44.3	40.9	57.6	81.9
82.5°	27.3	30.6	49.8	34.7	32.1	34.7	49.8	30.6	27.3	41.3	57.3
85°	13.6	13.6	20.5	13.6	13.6	13.6	20.5	13.6	13.6	20.3	27.3
87.5°	2.7	3.0	6.1	3.4	3.4	3.4	6.1	3.0	2.7	5.6	6.1
90°	0.0	1.1	3.4	3.4	3.4	3.4	3.4	1.1	0.0	1.1	3.4
92.5°	6.3	25.1	80.3	26.7	18.8	26.7	80.3	25.1	6.3	25.1	80.3
95°	19.2	57.9	260.0	96.4	62.2	96.4	260.0	57.9	19.2	57.9	260.0
97.5°	35.7	75.1	440.5	275.2	168.9	275.2	440.5	75.1	35.7	75.1	440.5
100°	47.5	85.1	502.0	457.6	297.3	457.6	502.0	85.1	47.5	85.1	502.0
102.5°	60.1	96.0	491.1	672.0	514.4	672.0	491.1	96.0	60.1	96.0	491.1
105°	79.1	111.2	447.7	852.8	817.4	852.8	447.7	111.2	79.1	111.2	447.7
107.5°	98.1	127.8	406.3	871.6	919.4	871.6	406.3	127.8	98.1	127.8	406.3
110°	110.8	139.5	385.5	849.9	938.3	849.9	385.5	139.5	110.8	139.5	385.5

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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°	202.5°	225°
112.5°	123.5	150.4	373.8	812.5	924.8	812.5	373.8	150.4	123.5	150.4	373.8
115°	141.3	167.8	361.8	751.4	884.1	751.4	361.8	167.8	141.3	167.8	361.8
117.5°	158.7	183.9	357.0	692.7	826.4	692.7	357.0	183.9	158.7	183.9	357.0
120°	169.6	193.9	356.1	656.4	785.7	656.4	356.1	193.9	169.6	193.9	356.1
122.5°	180.4	203.9	356.1	627.2	747.7	627.2	356.1	203.9	180.4	203.9	356.1
125°	195.6	218.8	356.1	589.1	694.2	589.1	356.1	218.8	195.6	218.8	356.1
127.5°	208.9	231.3	356.1	559.6	649.2	559.6	356.1	231.3	208.9	231.3	356.1
130°	217.1	240.3	356.1	542.2	622.9	542.2	356.1	240.3	217.1	240.3	356.1
132.5°	225.2	248.4	355.2	528.5	601.2	528.5	355.2	248.4	225.2	248.4	355.2
135°	236.3	259.5	353.9	506.8	570.9	506.8	353.9	259.5	236.3	259.5	353.9
137.5°	247.1	271.5	353.6	486.1	543.3	486.1	353.6	271.5	247.1	271.5	353.6
140°	254.4	278.7	352.7	471.5	523.4	471.5	352.7	278.7	254.4	278.7	352.7
142.5°	263.4	286.9	353.6	456.9	505.4	456.9	353.6	286.9	263.4	286.9	353.6
145°	275.9	296.9	353.9	437.3	476.0	437.3	353.9	296.9	275.9	296.9	353.9
147.5°	288.3	306.2	354.1	419.9	451.5	419.9	354.1	306.2	288.3	306.2	354.1
150°	297.3	311.7	355.0	409.8	435.3	409.8	355.0	311.7	297.3	311.7	355.0
152.5°	304.6	317.2	355.0	401.6	422.6	401.6	355.0	317.2	304.6	317.2	355.0
155°	314.3	325.3	355.0	390.4	405.9	390.4	355.0	325.3	314.3	325.3	355.0
157.5°	324.7	332.2	356.1	383.5	394.1	383.5	356.1	332.2	324.7	332.2	356.1
160°	330.1	336.7	356.1	378.9	387.8	378.9	356.1	336.7	330.1	336.7	356.1
162.5°	335.5	340.4	356.1	375.3	381.4	375.3	356.1	340.4	335.5	340.4	356.1
165°	342.6	345.9	356.1	369.8	373.1	369.8	356.1	345.9	342.6	345.9	356.1
167.5°	349.1	350.0	357.3	365.9	368.8	365.9	357.3	350.0	349.1	350.0	357.3
170°	352.7	352.7	357.3	364.1	365.2	364.1	357.3	352.7	352.7	352.7	357.3
172.5°	354.5	355.4	357.3	362.2	362.5	362.2	357.3	355.4	354.5	355.4	357.3
175°	358.4	357.3	358.4	360.6	359.5	360.6	358.4	357.3	358.4	357.3	358.4
177.5°	359.5	358.6	358.6	360.4	358.6	360.4	358.6	358.6	359.5	358.6	358.6
180°	359.5	359.5	359.5	359.5	359.5	359.5	359.5	359.5	359.5	359.5	359.5

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CATALOG NUMBER: SQ2-FA-050U-050D-L830-UNV-STD-W-4

CANDELA DISTRIBUTION (continued):

	247.5°	270°	292.5°	315°	337.5°	360°
0°	880.1	880.1	880.1	880.1	880.1	880.1
2.5°	852.8	850.1	852.8	861.0	874.7	874.7
5°	739.9	723.2	739.9	801.7	856.5	866.5
7.5°	672.6	667.2	672.6	698.6	813.6	858.3
10°	648.1	648.1	648.1	668.6	762.8	852.8
12.5°	645.7	659.1	645.7	646.8	717.2	844.6
15°	686.0	702.7	686.0	631.1	678.7	822.1
17.5°	699.6	713.0	699.6	631.8	644.1	794.1
20°	699.6	713.0	699.6	648.1	627.7	777.8
22.5°	696.9	710.2	696.9	656.3	608.5	755.9
25°	689.2	695.9	689.2	655.0	582.9	713.0
27.5°	675.5	680.2	675.5	641.3	557.7	660.4
30°	662.0	672.0	662.0	627.7	541.0	627.7
32.5°	648.2	650.2	648.2	605.8	524.0	586.7
35°	627.6	624.3	627.6	579.9	498.7	525.3
37.5°	599.8	603.8	599.8	558.1	472.6	463.9
40°	583.5	590.2	583.5	539.0	453.0	423.0
42.5°	567.1	573.8	567.1	522.6	433.9	401.2
45°	542.5	545.8	542.5	494.6	405.5	385.5
47.5°	513.8	517.2	513.8	469.4	376.3	361.6
50°	494.7	498.0	494.7	450.3	354.3	334.3
52.5°	472.9	476.2	472.9	433.9	327.2	315.2
55°	440.1	440.1	440.1	402.5	286.8	296.8
57.5°	402.6	406.6	402.6	369.8	245.1	253.8
60°	375.4	382.1	375.4	348.0	215.3	232.0
62.5°	350.8	354.8	350.8	323.4	196.1	207.4
65°	310.5	313.8	310.5	283.1	173.8	167.2
67.5°	265.5	268.1	265.5	246.3	153.0	131.0
70°	235.4	235.4	235.4	221.7	139.2	109.2
72.5°	205.4	208.1	205.4	191.7	125.5	95.5
75°	160.4	163.7	160.4	150.1	101.7	71.6
77.5°	115.4	118.7	115.4	109.2	76.5	51.9
80°	85.4	88.7	85.4	81.9	57.6	40.9
82.5°	60.7	61.4	60.7	57.3	41.3	27.3
85°	27.3	27.3	27.3	27.3	20.3	13.6
87.5°	6.1	6.1	6.1	6.1	5.6	2.7
90°	3.4	3.4	3.4	3.4	1.1	0.0
92.5°	26.7	18.8	26.7	80.3	25.1	6.3
95°	96.4	62.2	96.4	260.0	57.9	19.2
97.5°	275.2	168.9	275.2	440.5	75.1	35.7
100°	457.6	297.3	457.6	502.0	85.1	47.5
102.5°	672.0	514.4	672.0	491.1	96.0	60.1
105°	852.8	817.4	852.8	447.7	111.2	79.1
107.5°	871.6	919.4	871.6	406.3	127.8	98.1
110°	849.9	938.3	849.9	385.5	139.5	110.8

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CANDELA DISTRIBUTION (continued):

	247.5°	270°	292.5°	315°	337.5°	360°
112.5°	812.5	924.8	812.5	373.8	150.4	123.5
115°	751.4	884.1	751.4	361.8	167.8	141.3
117.5°	692.7	826.4	692.7	357.0	183.9	158.7
120°	656.4	785.7	656.4	356.1	193.9	169.6
122.5°	627.2	747.7	627.2	356.1	203.9	180.4
125°	589.1	694.2	589.1	356.1	218.8	195.6
127.5°	559.6	649.2	559.6	356.1	231.3	208.9
130°	542.2	622.9	542.2	356.1	240.3	217.1
132.5°	528.5	601.2	528.5	355.2	248.4	225.2
135°	506.8	570.9	506.8	353.9	259.5	236.3
137.5°	486.1	543.3	486.1	353.6	271.5	247.1
140°	471.5	523.4	471.5	352.7	278.7	254.4
142.5°	456.9	505.4	456.9	353.6	286.9	263.4
145°	437.3	476.0	437.3	353.9	296.9	275.9
147.5°	419.9	451.5	419.9	354.1	306.2	288.3
150°	409.8	435.3	409.8	355.0	311.7	297.3
152.5°	401.6	422.6	401.6	355.0	317.2	304.6
155°	390.4	405.9	390.4	355.0	325.3	314.3
157.5°	383.5	394.1	383.5	356.1	332.2	324.7
160°	378.9	387.8	378.9	356.1	336.7	330.1
162.5°	375.3	381.4	375.3	356.1	340.4	335.5
165°	369.8	373.1	369.8	356.1	345.9	342.6
167.5°	365.9	368.8	365.9	357.3	350.0	349.1
170°	364.1	365.2	364.1	357.3	352.7	352.7
172.5°	362.2	362.5	362.2	357.3	355.4	354.5
175°	360.6	359.5	360.6	358.4	357.3	358.4
177.5°	360.4	358.6	360.4	358.6	358.6	359.5
180°	359.5	359.5	359.5	359.5	359.5	359.5

TEST NUMBER: P1191251

CATALOG NUMBER: SQ2-FA-050U-050D-L830-UNV-STD-W-4

CIE UGR TABLE:

Reflectances:											
Ceiling		0.7	0.7	0.5	0.5	0.3	0.7	0.7	0.5	0.5	0.3
Wall		0.5	0.3	0.5	0.3	0.3	0.5	0.3	0.5	0.3	0.3
Reference plane		0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
Room dimensions		Viewed crosswise					Viewed endwise				
X=2H	Y=2H	15.52	16.38	16.48	17.35	18.63	16.75	17.60	17.71	18.58	19.86
	3H	16.61	17.38	17.59	18.36	19.67	17.99	18.76	18.96	19.74	21.04
	4H	16.97	17.69	17.95	18.68	19.99	18.38	19.11	19.37	20.09	21.40
	6H	17.13	17.80	18.13	18.79	20.11	18.54	19.21	19.54	20.20	21.53
	8H	17.16	17.80	18.17	18.81	20.13	18.57	19.20	19.57	20.21	21.53
	12H	17.16	17.76	18.17	18.77	20.11	18.55	19.15	19.56	20.16	21.50
4H	2H	16.45	17.18	17.44	18.17	19.47	17.36	18.09	18.35	19.08	20.39
	3H	17.82	18.42	18.82	19.44	20.76	18.81	19.42	19.82	20.44	21.76
	4H	18.26	18.82	19.27	19.83	21.17	19.28	19.83	20.29	20.84	22.19
	6H	18.49	18.97	19.51	20.00	21.34	19.50	19.98	20.52	21.01	22.35
	8H	18.55	18.99	19.57	20.02	21.38	19.55	19.99	20.57	21.02	22.38
	12H	18.55	18.95	19.59	19.99	21.36	19.54	19.94	20.58	20.98	22.34
8H	4H	18.66	19.11	19.69	20.13	21.49	19.49	19.93	20.51	20.96	22.32
	6H	19.01	19.37	20.05	20.44	21.80	19.80	20.16	20.85	21.23	22.59
	8H	19.12	19.44	20.18	20.50	21.87	19.89	20.21	20.95	21.27	22.64
	12H	19.16	19.44	20.22	20.49	21.91	19.91	20.19	20.97	21.24	22.66
12H	4H	18.67	19.07	19.71	20.11	21.47	19.46	19.86	20.50	20.90	22.26
	6H	19.08	19.40	20.14	20.46	21.83	19.82	20.14	20.88	21.20	22.57
	8H	19.22	19.51	20.28	20.56	21.97	19.93	20.21	20.99	21.26	22.68