

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: NEO-RAY

Report Number: P242498

Luminaire Tested: **S123DR-S775D830-X4F0-XX-UDD-D-W**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P242498
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1802-639-15)
Test Lab: INNOVATION CENTER
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: NEO-RAY
Catalog Number: S123DR-S775D830-X4F0-XX-UDD-D-W
Description: DEFINE 3 DIRECT RECESSED WITH SATIN DROP DIFFUSER
STANDARD LIGHT ENGINE
Light Source: (92) 3000K CCT, 80 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 2907.9 lumens
Efficiency: N/A
Efficacy: 110.1 lumens/watt
Spacing Criteria (0/90/45): 1.2 / 1.25 / 1.37
Luminous Opening: Rectangular w/ Sides (W: 0.23' x L: 3.88' x H: 0.08')
CIE Type: Direct

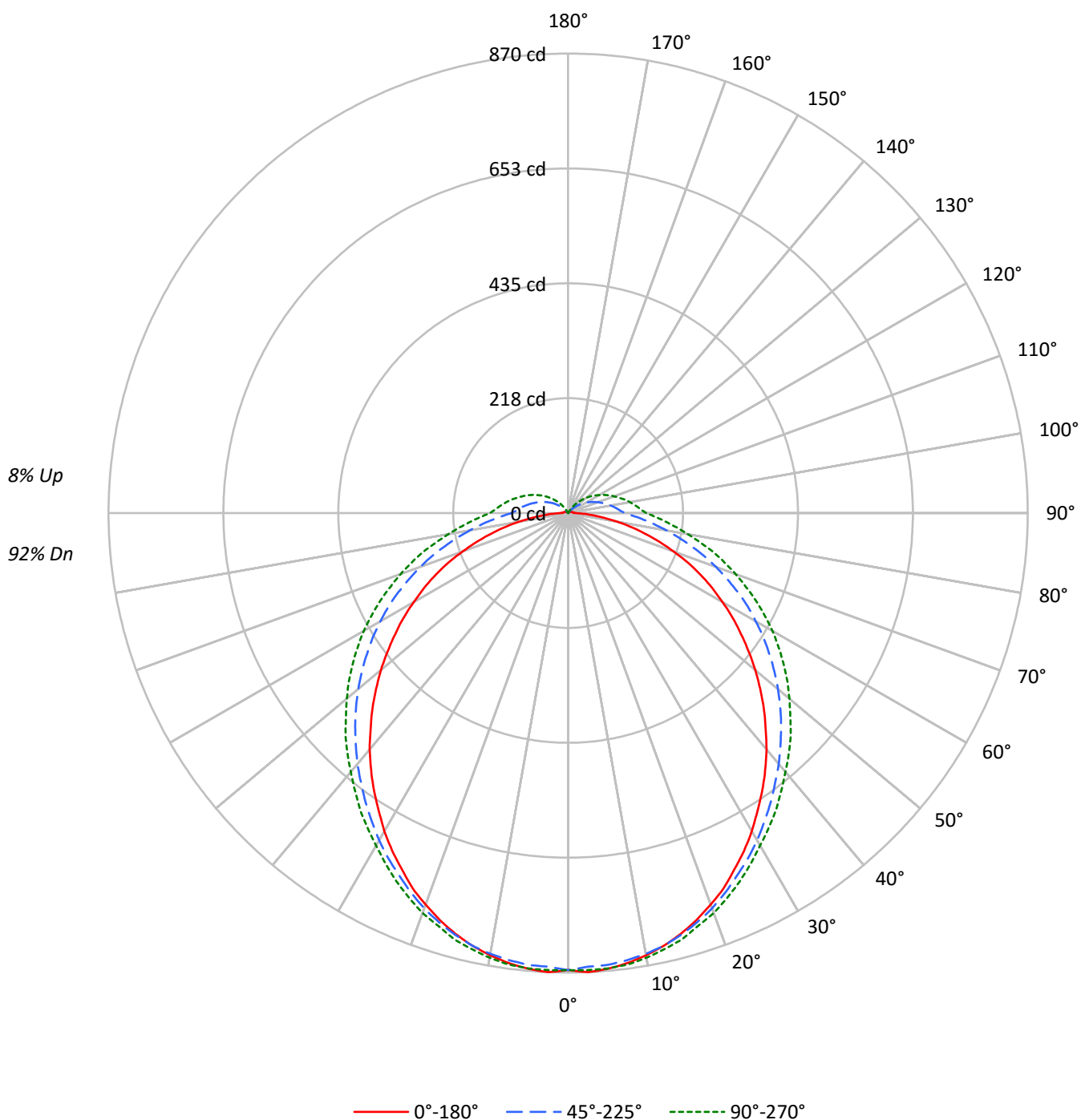
Input Watts (W): 26.4
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



TEST NUMBER: P242498

CATALOG NUMBER: S123DR-S775D830-X4F0-XX-UDD-D-W

Luminous Intensity Polar Plot



TEST NUMBER: P242498

CATALOG NUMBER: S123DR-S775D830-X4F0-XX-UDD-D-W

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	30	10	50	30	10
RCR																				
0	117	117	117	117	113	113	113	113	106	106	106	100	100	100	94	94	94	94	94	92
1	105	100	95	90	102	97	92	88	91	87	84	85	82	80	80	78	76	76	76	73
2	95	86	79	72	92	83	77	71	79	73	68	74	69	65	70	66	63	63	63	60
3	86	75	67	60	83	73	65	59	69	62	56	65	59	54	61	56	52	52	52	50
4	79	66	57	50	76	64	56	49	61	54	48	57	51	46	54	49	45	45	45	42
5	72	59	50	43	70	58	49	42	54	47	41	52	45	40	49	43	39	39	39	36
6	67	53	44	37	64	52	43	37	49	42	36	47	40	35	44	38	34	34	34	32
7	62	48	39	33	60	47	38	32	45	37	32	42	36	31	40	35	30	30	30	28
8	58	44	35	29	56	43	35	29	41	33	28	39	32	28	37	31	27	27	27	25
9	54	40	32	26	52	39	31	26	37	30	25	36	29	25	34	28	24	24	24	22
10	50	37	29	24	49	36	29	24	35	28	23	33	27	23	32	26	22	22	22	20

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	10488	10488	10488
5°	10520	10205	10204
10°	10425	9951	9888
15°	10290	9667	9549
20°	10097	9346	9180
25°	9860	8982	8795
30°	9616	8653	8406
35°	9343	8305	8093
40°	9083	7988	7759
45°	8795	7682	7489
50°	8509	7380	7192
55°	8193	7071	6923
60°	7886	6754	6646
65°	7573	6417	6319
70°	7097	6037	5982
75°	6499	5605	5637
80°	5805	5171	5243
85°	5158	4846	4982

TEST NUMBER: P242498

CATALOG NUMBER: S123DR-S775D830-X4F0-XX-UDD-D-W

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	82.1	2.8
10°-20°	234.0	8.0
20°-30°	349.9	12.0
30°-40°	417.8	14.4
40°-50°	437.1	15.0
50°-60°	410.2	14.1
60°-70°	342.6	11.8
70°-80°	245.0	8.4
80°-90°	145.8	5.0
90°-100°	91.6	3.2
100°-110°	67.3	2.3
110°-120°	45.0	1.5
120°-130°	25.7	0.9
130°-140°	11.5	0.4
140°-150°	2.4	0.1
150°-160°	0.0	0.0
160°-170°	0.0	0.0
170°-180°	0.0	0.0
0°-30°	666.0	22.9
0°-40°	1083.8	37.3
0°-60°	1931.1	66.4
0°-90°	2664.5	91.6
90°-120°	203.9	7.0
90°-150°	243.5	8.4
90°-180°	243.0	8.4
0°-180°	2907.9	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	865	865	865	865	865	
5°	866	864	859	866	865	82
15°	825	828	827	836	835	232
25°	745	754	757	769	769	343
35°	641	656	668	682	686	401
45°	524	547	570	588	596	404
55°	400	431	465	490	498	358
65°	276	313	354	383	392	273
75°	150	194	241	272	284	160
85°	46	93	143	175	185	48
90°	12	58	106	139	148	9
95°	10	47	93	122	132	8
105°	8	30	71	97	106	8
115°	5	16	50	73	80	5
125°	3	3	30	50	57	3
135°	2	1	11	28	33	1
145°	1	0	0	8	11	0
155°	0	0	0	0	0	0
165°	0	0	0	0	0	0
175°	0	0	0	0	0	0
180°	0	0	0	0	0	0

TEST NUMBER: P242498

CATALOG NUMBER: S123DR-S775D830-X4F0-XX-UDD-D-W

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	865.3	865.3	865.3	865.3	865.3
2.5°	870.0	867.1	859.6	867.1	866.2
5°	866.2	864.3	858.7	866.2	865.3
7.5°	859.6	859.6	853.9	863.4	862.4
10°	850.2	852.1	847.3	856.8	854.9
12.5°	838.9	841.7	838.9	847.3	845.5
15°	824.7	827.6	826.6	836.0	835.1
17.5°	807.8	813.4	812.5	821.0	819.1
20°	788.9	794.6	796.4	804.9	805.9
22.5°	769.1	774.8	777.6	788.9	788.0
25°	744.6	754.0	756.9	769.1	769.1
27.5°	721.0	731.4	737.1	747.4	748.4
30°	695.6	707.8	715.4	726.7	726.7
32.5°	667.3	681.5	691.8	704.1	706.9
35°	640.9	656.0	668.3	682.4	686.2
37.5°	612.7	629.6	643.8	659.8	662.6
40°	584.4	601.3	620.2	636.2	640.0
42.5°	553.3	575.0	594.7	612.7	618.3
45°	524.1	546.7	570.2	588.1	595.7
47.5°	492.9	518.4	544.8	564.6	570.2
50°	462.8	489.2	518.4	540.1	546.7
52.5°	430.7	459.0	492.0	514.6	523.1
55°	399.6	430.7	464.7	490.1	497.7
57.5°	369.5	401.5	438.3	463.7	472.2
60°	337.4	371.4	410.0	436.4	446.8
62.5°	307.3	342.1	383.6	410.0	419.4
65°	276.2	312.9	354.4	382.7	392.1
67.5°	245.1	283.7	325.2	356.3	363.8
70°	212.1	252.6	297.8	328.0	337.4
72.5°	181.9	222.4	269.6	300.7	310.1
75°	149.9	194.2	241.3	272.4	283.7
77.5°	122.5	166.8	214.0	246.9	255.4
80°	93.3	139.5	188.5	220.6	230.0
82.5°	67.9	115.0	164.9	197.0	206.4
85°	46.2	93.3	143.3	175.3	184.7
87.5°	28.3	75.4	123.5	155.5	164.9
90°	12.3	58.4	106.5	138.6	148.0
92.5°	11.3	51.8	99.0	130.1	138.6
95°	10.4	47.1	93.3	122.5	132.0
97.5°	9.4	43.4	87.7	115.9	125.4
100°	8.5	38.6	82.0	109.3	118.8
102.5°	7.5	33.9	76.3	102.7	112.2
105°	7.5	30.2	70.7	97.1	105.6
107.5°	6.6	26.4	65.0	90.5	99.0
110°	5.7	22.6	60.3	84.8	92.4



TEST NUMBER: P242498

CATALOG NUMBER: S123DR-S775D830-X4F0-XX-UDD-D-W

CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	5.7	18.9	54.7	78.2	86.7
115°	4.7	16.0	50.0	72.6	80.1
117.5°	4.7	12.3	44.3	66.9	74.5
120°	3.8	8.5	39.6	61.3	67.9
122.5°	3.8	5.7	34.9	55.6	62.2
125°	2.8	2.8	30.2	50.0	56.6
127.5°	2.8	1.9	25.4	44.3	50.9
130°	2.8	1.9	20.7	38.6	44.3
132.5°	1.9	1.9	16.0	33.0	39.6
135°	1.9	0.9	11.3	28.3	33.0
137.5°	1.9	0.9	7.5	22.6	27.3
140°	0.9	0.9	3.8	17.9	22.6
142.5°	0.9	0.0	0.0	12.3	17.0
145°	0.9	0.0	0.0	7.5	11.3
147.5°	0.0	0.0	0.0	2.8	6.6
150°	0.0	0.0	0.0	0.0	1.9
152.5°	0.0	0.0	0.0	0.0	0.0
155°	0.0	0.0	0.0	0.0	0.0
157.5°	0.0	0.0	0.0	0.0	0.0
160°	0.0	0.0	0.0	0.0	0.0
162.5°	0.0	0.0	0.0	0.0	0.0
165°	0.0	0.0	0.0	0.0	0.0
167.5°	0.0	0.0	0.0	0.0	0.0
170°	0.0	0.0	0.0	0.0	0.0
172.5°	0.0	0.0	0.0	0.0	0.0
175°	0.0	0.0	0.0	0.0	0.0
177.5°	0.0	0.0	0.0	0.0	0.0
180°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)