

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: P242325

Luminaire Tested: **S122DR-S485D830-X4F0-XX-UDD-D-W**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P242325
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1802-639-14)
Test Lab: INNOVATION CENTER
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: NEO-RAY
Catalog Number: S122DR-S485D830-X4F0-XX-UDD-D-W
Description: DEFINE 2 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: 1781.8 lumens
Efficiency: N/A
Efficacy: 94.8 lumens/watt
Spacing Criteria (0/90/45): 1.21 / 1.31 / 1.42
Luminous Opening: Rectangular w/ Sides (W: 0.15' x L: 3.88' x H: 0.08')
CIE Type: Semi-Direct

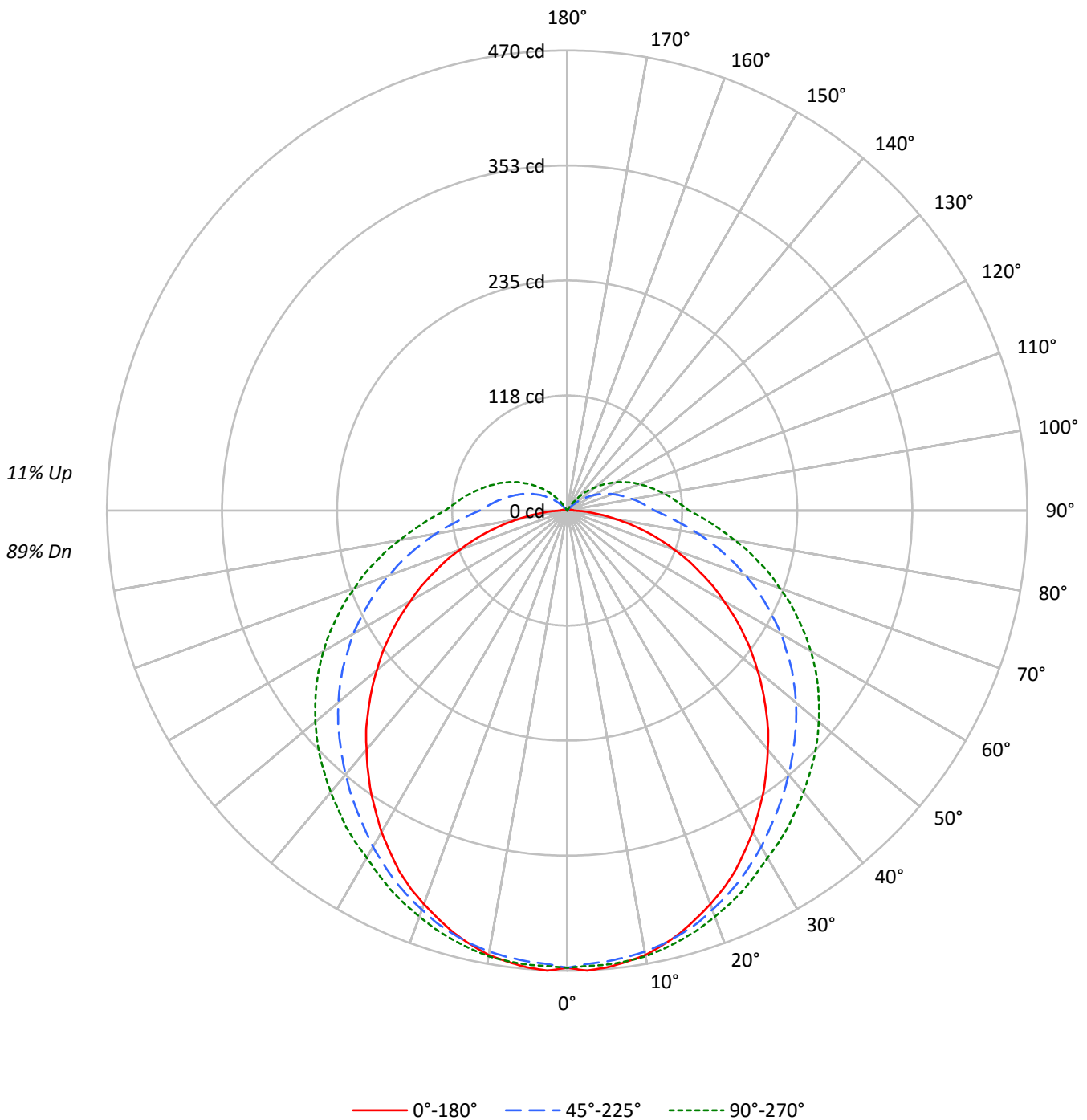
Input Watts (W): 18.8
Input Voltage (V): 120
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



TEST NUMBER: P242325

CATALOG NUMBER: S122DR-S485D830-X4F0-XX-UDD-D-W

Luminous Intensity Polar Plot





TEST NUMBER: P242325

CATALOG NUMBER: S122DR-S485D830-X4F0-XX-UDD-D-W

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	116	116	116	116	112	112	112	112	105	105	105	98	98	98	92	92	92	89
1	104	98	93	88	100	95	90	86	88	85	81	82	79	77	77	75	72	69
2	94	84	77	70	90	81	74	68	76	70	65	71	66	62	66	62	59	56
3	85	73	64	57	81	71	63	56	66	59	54	62	56	51	58	53	49	46
4	77	64	55	48	74	62	54	47	58	51	45	55	48	43	51	46	42	39
5	71	57	48	41	68	56	47	40	52	44	39	49	42	37	46	40	36	33
6	65	51	42	35	63	50	41	35	47	39	34	44	37	32	42	36	31	29
7	60	46	37	31	58	45	37	31	43	35	30	40	34	29	38	32	28	25
8	56	42	34	28	54	41	33	27	39	32	26	37	30	25	35	29	25	23
9	52	39	30	25	50	38	30	24	36	29	24	34	27	23	32	26	22	20
10	49	36	28	22	47	35	27	22	33	26	21	31	25	21	30	24	20	18

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	8895	8895	8895
5°	8937	8525	8479
10°	8881	8240	8121
15°	8758	7942	7754
20°	8602	7629	7405
25°	8450	7329	7086
30°	8234	7023	6771
35°	8016	6728	6542
40°	7786	6473	6313
45°	7568	6243	6115
50°	7333	6031	5918
55°	7088	5806	5718
60°	6787	5570	5506
65°	6471	5300	5264
70°	6121	5010	5002
75°	5668	4720	4755
80°	4967	4417	4498
85°	4280	4135	4280



TEST NUMBER: P242325

CATALOG NUMBER: S122DR-S485D830-X4F0-XX-UDD-D-W

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	44.3	2.5
10°-20°	127.0	7.1
20°-30°	192.4	10.8
30°-40°	234.3	13.1
40°-50°	252.0	14.1
50°-60°	244.8	13.7
60°-70°	213.8	12.0
70°-80°	164.5	9.2
80°-90°	110.2	6.2
90°-100°	76.0	4.3
100°-110°	55.5	3.1
110°-120°	36.7	2.1
120°-130°	20.4	1.1
130°-140°	8.6	0.5
140°-150°	1.4	0.1
150°-160°	0.0	0.0
160°-170°	0.0	0.0
170°-180°	0.0	0.0
0°-30°	363.6	20.4
0°-40°	597.9	33.6
0°-60°	1094.7	61.4
0°-90°	1583.2	88.9
90°-120°	168.2	9.4
90°-150°	198.6	11.1
90°-180°	199.0	11.2
0°-180°	1781.8	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	467	467	467	467	467	
5°	468	466	462	466	466	44
15°	447	448	448	454	453	126
25°	406	411	417	425	427	187
35°	350	361	374	389	394	219
45°	287	305	329	350	357	222
55°	220	244	280	304	313	197
65°	150	183	223	251	260	149
75°	83	121	164	194	202	88
85°	24	66	110	138	148	26
90°	7	46	89	116	124	5
95°	5	37	78	104	112	4
105°	3	23	58	82	89	4
115°	3	10	41	61	68	2
125°	1	1	23	41	47	1
135°	1	1	7	22	27	1
145°	0	0	0	4	7	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: P242325

CATALOG NUMBER: S122DR-S485D830-X4F0-XX-UDD-D-W

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	467.0	467.0	467.0	467.0	467.0
2.5°	470.4	468.3	463.6	467.0	465.6
5°	468.3	466.3	462.2	466.3	465.6
7.5°	464.9	463.6	460.2	464.9	464.3
10°	460.9	459.5	457.5	462.9	462.2
12.5°	454.1	454.8	453.4	458.9	458.2
15°	446.7	448.0	448.0	454.1	453.4
17.5°	437.2	439.9	441.9	448.0	448.0
20°	427.7	431.1	433.8	441.3	441.3
22.5°	417.6	421.6	425.7	433.1	434.5
25°	406.1	410.8	416.9	425.0	427.0
27.5°	392.5	400.0	406.7	416.9	418.2
30°	379.0	387.8	396.6	407.4	409.4
32.5°	364.1	374.3	385.1	397.9	402.0
35°	349.9	361.4	374.3	389.1	393.9
37.5°	334.3	347.2	363.4	379.7	384.4
40°	318.8	333.6	351.9	369.5	375.6
42.5°	303.9	318.8	340.4	360.0	366.1
45°	287.0	305.2	328.9	349.9	356.7
47.5°	270.7	290.3	317.4	339.1	346.5
50°	253.8	274.8	305.2	328.2	335.7
52.5°	237.5	259.9	292.4	316.1	324.2
55°	220.0	244.3	279.5	303.9	312.7
57.5°	203.0	230.1	265.3	291.7	300.5
60°	184.8	213.9	252.4	278.2	287.6
62.5°	168.5	199.0	237.5	265.3	274.1
65°	150.2	183.4	223.3	251.1	259.9
67.5°	134.0	168.5	209.1	236.9	246.3
70°	116.4	151.6	193.6	222.7	230.8
72.5°	100.2	136.7	179.3	207.8	217.9
75°	83.2	121.1	164.5	193.6	202.4
77.5°	67.0	106.3	150.2	179.3	188.8
80°	50.8	92.0	136.0	164.5	173.9
82.5°	37.2	77.8	122.5	150.9	159.7
85°	24.4	66.3	109.6	138.1	147.5
87.5°	14.9	55.5	98.8	126.6	135.4
90°	6.8	46.0	89.3	116.4	124.5
92.5°	6.1	42.0	83.2	109.6	117.8
95°	5.4	37.2	77.8	103.5	111.7
97.5°	4.7	33.8	73.1	98.1	106.3
100°	4.7	29.8	67.7	92.7	100.2
102.5°	4.1	26.4	62.9	87.3	94.7
105°	3.4	23.0	58.2	81.9	89.3
107.5°	3.4	19.6	53.5	76.5	83.9
110°	2.7	16.2	49.4	71.1	78.5



TEST NUMBER: P242325

CATALOG NUMBER: S122DR-S485D830-X4F0-XX-UDD-D-W

CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	2.7	13.5	44.7	66.3	73.8
115°	2.7	10.2	40.6	60.9	68.4
117.5°	2.0	7.4	35.9	56.2	62.9
120°	2.0	4.7	31.8	50.8	58.2
122.5°	2.0	2.7	27.7	46.0	52.1
125°	1.4	1.4	23.0	41.3	47.4
127.5°	1.4	0.7	18.9	35.9	42.0
130°	1.4	0.7	14.9	31.1	36.5
132.5°	1.4	0.7	10.8	26.4	31.8
135°	0.7	0.7	7.4	21.7	27.1
137.5°	0.7	0.7	4.1	16.9	21.7
140°	0.7	0.0	1.4	12.2	16.2
142.5°	0.7	0.0	0.0	8.1	11.5
145°	0.0	0.0	0.0	4.1	7.4
147.5°	0.0	0.0	0.0	0.7	2.7
150°	0.0	0.0	0.0	0.0	0.0
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)