

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: P243116

Luminaire Tested: **S122DR-H485D830-X4F0-XX-UDD-F-W**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P243116  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1802-639-48)  
Test Lab: INNOVATION CENTER  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: NEO-RAY  
Catalog Number: S122DR-H485D830-X4F0-XX-UDD-F-W  
Description: DEFINE 2 DIRECT RECESSED WITH SATIN FLUSH DIFFUSER.  
HIGH PERFORMANCE LIGHT ENGINE  
Light Source: (184) 3000K CCT, 80 CRI LEDS  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

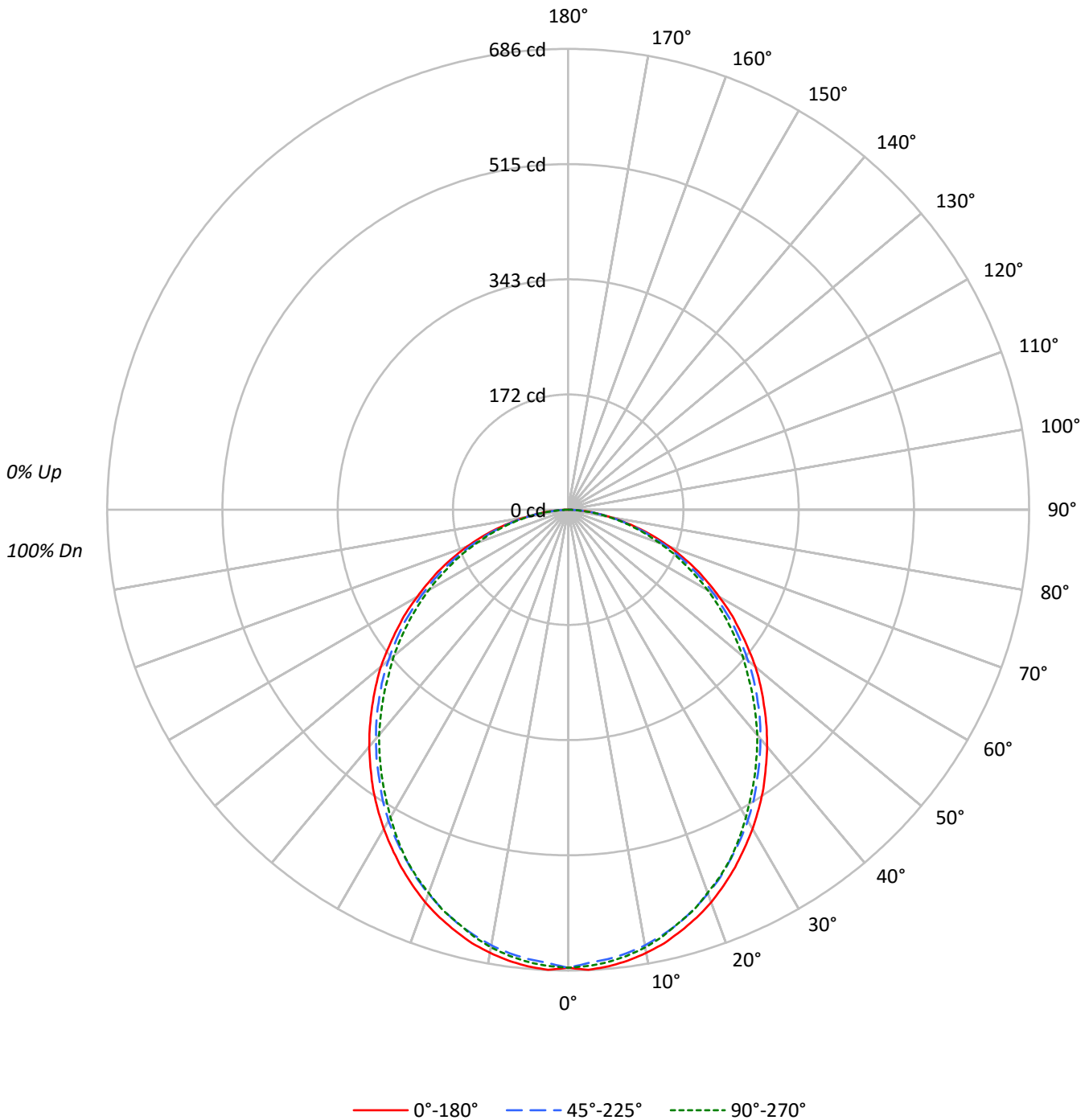
Lumens per Lamp: N/A  
Luminaire Lumens: 1734.9 lumens  
Efficiency: N/A  
Efficacy: 100.9 lumens/watt  
Spacing Criteria (0/90/45): 1.2 / 1.16 / 1.29  
Luminous Opening: Rectangular (W 0.15' x L: 3.88' x H: 0')  
CIE Type: Direct  
  
Input Watts (W): 17.2  
Input Voltage (V): 120  
Input Current (A<sub>in</sub>): 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: P243116

CATALOG NUMBER: S122DR-H485D830-X4F0-XX-UDD-F-W

### Luminous Intensity Polar Plot





TEST NUMBER: P243116

CATALOG NUMBER: S122DR-H485D830-X4F0-XX-UDD-F-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	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100
1	109	104	100	96	106	102	98	95	98	95	92	94	91	89	90	88	86	84
2	99	91	85	79	97	89	83	78	86	81	76	83	78	74	80	76	73	71
3	91	80	72	66	88	79	71	65	76	69	64	73	68	63	71	66	62	60
4	83	71	63	56	81	70	62	56	68	61	55	65	59	54	63	58	54	51
5	77	64	55	49	75	63	55	48	61	53	48	59	52	47	57	51	47	45
6	71	58	49	43	69	57	48	42	55	48	42	53	47	42	52	46	41	39
7	66	52	44	38	64	52	43	38	50	43	37	49	42	37	47	41	37	35
8	61	48	40	34	60	47	39	34	46	39	33	45	38	33	44	38	33	31
9	57	44	36	30	56	43	36	30	42	35	30	41	35	30	40	34	30	28
10	54	41	33	28	53	40	33	28	39	32	28	38	32	27	37	32	27	26

**AVERAGE LUMINANCE (cd/sqm):**

	0°	45°	90°
0°	12987	12987	12987
5°	13048	12843	12927
10°	12955	12736	12798
15°	12800	12565	12552
20°	12610	12330	12304
25°	12347	12045	12032
30°	12066	11760	11637
35°	11778	11396	11250
40°	11453	11062	10891
45°	11104	10716	10444
50°	10780	10354	10037
55°	10328	9976	9601
60°	9886	9505	9143
65°	9460	9005	8609
70°	8888	8432	8014
75°	8095	7772	7396
80°	7031	6823	6549
85°	6032	5354	4939



TEST NUMBER: P243116

CATALOG NUMBER: S122DR-H485D830-X4F0-XX-UDD-F-W

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	64.2	3.7
10°-20°	180.7	10.4
20°-30°	265.7	15.3
30°-40°	308.5	17.8
40°-50°	308.1	17.8
50°-60°	268.3	15.5
60°-70°	198.4	11.4
70°-80°	111.9	6.4
80°-90°	29.2	1.7
90°-100°	0.0	0.0
100°-110°	0.0	0.0
110°-120°	0.0	0.0
120°-130°	0.0	0.0
130°-140°	0.0	0.0
140°-150°	0.0	0.0
150°-160°	0.0	0.0
160°-170°	0.0	0.0
170°-180°	0.0	0.0
0°-30°	510.6	29.4
0°-40°	819.0	47.2
0°-60°	1395.4	80.4
0°-90°	1734.9	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1734.9	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	682	682	682	682	682	
5°	682	679	672	677	676	65
15°	649	646	637	640	636	183
25°	588	582	573	572	572	270
35°	506	501	490	486	484	316
45°	412	408	398	392	388	318
55°	311	308	300	292	289	279
65°	210	207	200	194	191	207
75°	110	109	106	102	100	117
85°	28	26	24	23	23	31
90°	0	0	0	0	0	



TEST NUMBER: P243116

CATALOG NUMBER: S122DR-H485D830-X4F0-XX-UDD-F-W

**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	681.8	681.8	681.8	681.8	681.8
2.5°	685.6	682.4	675.5	681.2	679.9
5°	682.4	679.3	671.7	677.4	676.1
7.5°	677.4	674.2	666.1	671.7	669.8
10°	669.8	666.1	658.5	662.3	661.7
12.5°	661.1	657.3	648.5	651.6	650.4
15°	649.1	646.0	637.2	639.7	636.5
17.5°	636.5	631.5	623.3	625.9	624.0
20°	622.1	617.1	608.3	609.5	607.0
22.5°	605.1	600.1	591.9	591.9	590.7
25°	587.5	582.5	573.1	572.5	572.5
27.5°	568.1	563.7	554.2	552.3	551.1
30°	548.6	544.8	534.7	531.0	529.1
32.5°	527.8	522.8	513.4	509.0	505.8
35°	506.5	500.8	490.1	485.7	483.8
37.5°	483.2	477.6	468.1	464.4	460.6
40°	460.6	455.6	444.9	439.2	438.0
42.5°	436.7	431.7	422.3	416.0	412.2
45°	412.2	407.8	397.8	391.5	387.7
47.5°	388.3	383.3	374.5	367.0	361.9
50°	363.8	358.8	349.4	340.6	338.7
52.5°	336.8	333.7	324.2	316.1	313.6
55°	311.0	308.5	300.4	292.2	289.1
57.5°	286.5	283.4	274.0	267.7	263.9
60°	259.5	257.6	249.5	242.6	240.0
62.5°	234.4	231.9	225.0	218.0	214.9
65°	209.9	206.7	199.8	193.5	191.0
67.5°	184.7	181.6	175.9	170.9	168.4
70°	159.6	157.1	151.4	147.0	143.9
72.5°	135.1	132.6	127.6	123.2	122.5
75°	110.0	109.3	105.6	101.8	100.5
77.5°	86.7	86.1	83.6	81.7	80.4
80°	64.1	64.1	62.2	60.3	59.7
82.5°	44.0	44.6	42.7	41.5	41.5
85°	27.6	26.4	24.5	23.2	22.6
87.5°	11.3	9.4	8.8	6.9	6.3
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)