

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: P242378

Luminaire Tested: **S122RDR-S485D935-X4F0-XX-UDD-F-W**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P242378  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1802-639-24)  
Test Lab: INNOVATION CENTER  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: NEO-RAY  
Catalog Number: S122RDR-S485D935-X4F0-XX-UDD-F-W  
Description: DEFINE 2 REGRESSED DIRECT RECESSED WITH SATIN FLUSH DIFFUSER  
STANDARD LIGHT ENGINE  
Light Source: (92) 3500K CCT, 90 CRI LEDS  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 1404.9 lumens  
Efficiency: N/A  
Efficacy: 74.7 lumens/watt  
Spacing Criteria (0/90/45): 1.2 / 0.99 / 1.16  
Luminous Opening: Rectangular (W 0.15' x L: 3.88' x H: 0')  
CIE Type: Direct

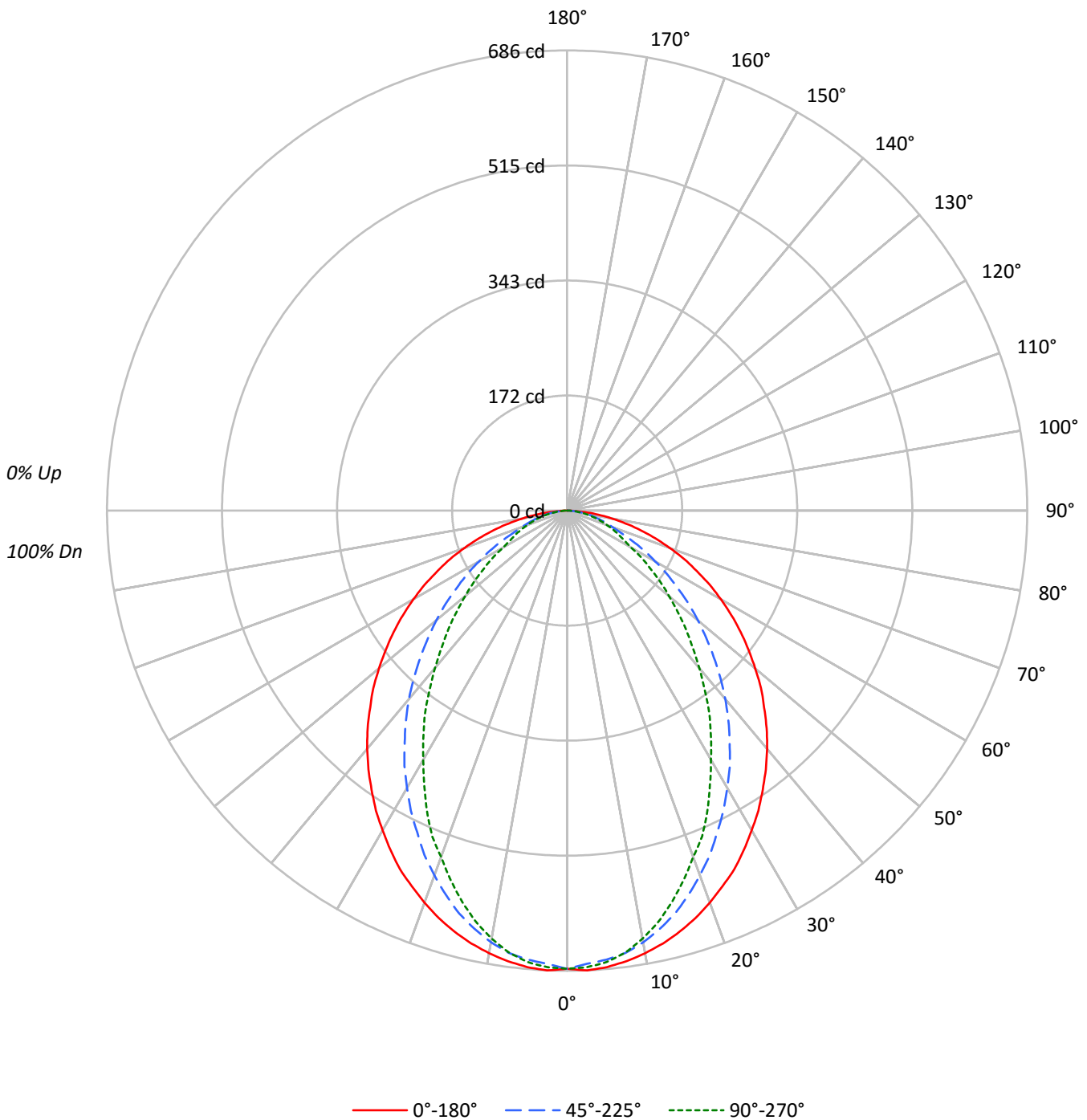
Input Watts (W): 18.8  
Input Voltage (V): 120  
Input Current (A<sub>in</sub>): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



TEST NUMBER: P242378

CATALOG NUMBER: S122RDR-S485D935-X4F0-XX-UDD-F-W

### Luminous Intensity Polar Plot





TEST NUMBER: P242378

CATALOG NUMBER: S122RDR-S485D935-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	110	106	102	98	107	103	100	97	99	96	94	95	93	91	92	90	88	86
2	101	94	87	82	98	92	86	81	88	83	79	85	81	78	82	79	76	74
3	93	83	76	70	90	82	75	69	79	73	68	76	71	67	74	69	66	64
4	86	75	66	60	83	73	66	60	71	64	59	69	63	58	66	62	57	55
5	79	67	59	53	77	66	58	52	64	57	52	62	56	51	60	55	51	49
6	74	61	53	47	72	60	52	46	58	51	46	57	50	46	55	50	45	43
7	68	56	47	42	67	55	47	42	53	46	41	52	46	41	51	45	41	39
8	64	51	43	38	62	51	43	37	49	42	37	48	42	37	47	41	37	35
9	60	47	39	34	59	47	39	34	46	39	34	44	38	34	44	38	34	32
10	56	44	36	31	55	43	36	31	42	36	31	41	35	31	41	35	31	29

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

	0°	45°	90°
0°	13011	13011	13011
5°	13061	12849	12920
10°	12961	12640	12531
15°	12812	12264	11911
20°	12606	11730	11140
25°	12396	11122	10395
30°	12101	10498	9436
35°	11817	9817	8597
40°	11530	9116	7624
45°	11190	8326	6745
50°	10846	7530	5879
55°	10491	6672	5051
60°	10080	5771	4190
65°	9614	4850	3817
70°	9055	3993	3514
75°	8375	3643	3275
80°	7393	3258	2984
85°	5813	2557	2557



TEST NUMBER: P242378

CATALOG NUMBER: S122RDR-S485D935-X4F0-XX-UDD-F-W

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	64.0	4.6
10°-20°	175.8	12.5
20°-30°	246.8	17.6
30°-40°	269.0	19.1
40°-50°	247.2	17.6
50°-60°	194.1	13.8
60°-70°	126.4	9.0
70°-80°	65.1	4.6
80°-90°	16.6	1.2
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°	486.5	34.6
0°-40°	755.5	53.8
0°-60°	1196.9	85.2
0°-90°	1404.9	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1404.9	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	683	683	683	683	683	
5°	683	680	672	678	676	65
15°	650	643	622	610	604	183
25°	590	570	529	504	495	271
35°	508	477	422	383	370	318
45°	415	374	309	265	250	321
55°	316	268	201	164	152	282
65°	213	163	108	87	85	211
75°	114	70	50	45	44	120
85°	27	14	12	12	12	32
90°	0	0	0	0	0	



TEST NUMBER: P242378

CATALOG NUMBER: S122RDR-S485D935-X4F0-XX-UDD-F-W

**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	683.1	683.1	683.1	683.1	683.1
2.5°	686.2	683.1	676.3	682.5	681.3
5°	683.1	680.0	672.0	677.6	675.7
7.5°	677.6	673.9	665.2	667.7	664.6
10°	670.1	665.8	653.5	651.6	647.9
12.5°	660.9	655.3	638.6	634.9	628.1
15°	649.7	642.9	621.9	610.2	604.0
17.5°	636.8	626.9	600.9	587.3	577.4
20°	621.9	609.6	578.7	563.2	549.6
22.5°	605.9	591.6	555.8	534.8	525.5
25°	589.8	570.0	529.2	503.8	494.6
27.5°	570.6	549.6	504.5	475.4	461.2
30°	550.2	526.7	477.3	445.7	429.0
32.5°	530.4	502.0	451.3	414.2	398.8
35°	508.2	476.6	422.2	383.3	369.7
37.5°	486.5	452.5	395.0	352.4	336.9
40°	463.7	426.6	366.6	322.7	306.6
42.5°	440.2	400.6	338.2	292.4	277.0
45°	415.4	374.0	309.1	265.2	250.4
47.5°	392.0	348.1	281.3	237.4	223.8
50°	366.0	322.1	254.1	211.4	198.4
52.5°	340.6	294.3	228.1	187.3	175.6
55°	315.9	267.7	200.9	163.8	152.1
57.5°	290.6	241.1	176.8	142.2	132.3
60°	264.6	215.1	151.5	119.9	110.0
62.5°	239.3	189.8	129.8	100.2	95.2
65°	213.3	163.2	107.6	86.6	84.7
67.5°	188.6	138.5	86.6	76.0	74.2
70°	162.6	114.4	71.7	65.5	63.1
72.5°	137.9	92.1	60.0	55.0	53.8
75°	113.8	70.5	49.5	45.1	44.5
77.5°	89.6	50.1	38.9	36.5	35.2
80°	67.4	35.9	29.7	27.2	27.2
82.5°	47.0	24.1	20.4	19.2	19.2
85°	26.6	13.6	11.7	11.7	11.7
87.5°	9.9	4.9	4.9	4.3	4.3
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)