

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: P242552

Luminaire Tested: **S123RDR-S1000D935-X4F0-XX-UDD-F-W**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P242552  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1802-639-25)  
Test Lab: INNOVATION CENTER  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: NEO-RAY  
Catalog Number: S123RDR-S1000D935-X4F0-XX-UDD-F-W  
Description: DEFINE 3 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: 3058.5 lumens  
Efficiency: N/A  
Efficacy: 87.9 lumens/watt  
Spacing Criteria (0/90/45): 1.21 / 1.07 / 1.22  
Luminous Opening: Rectangular (W 0.23' x L: 3.88' x H: 0')  
CIE Type: Direct

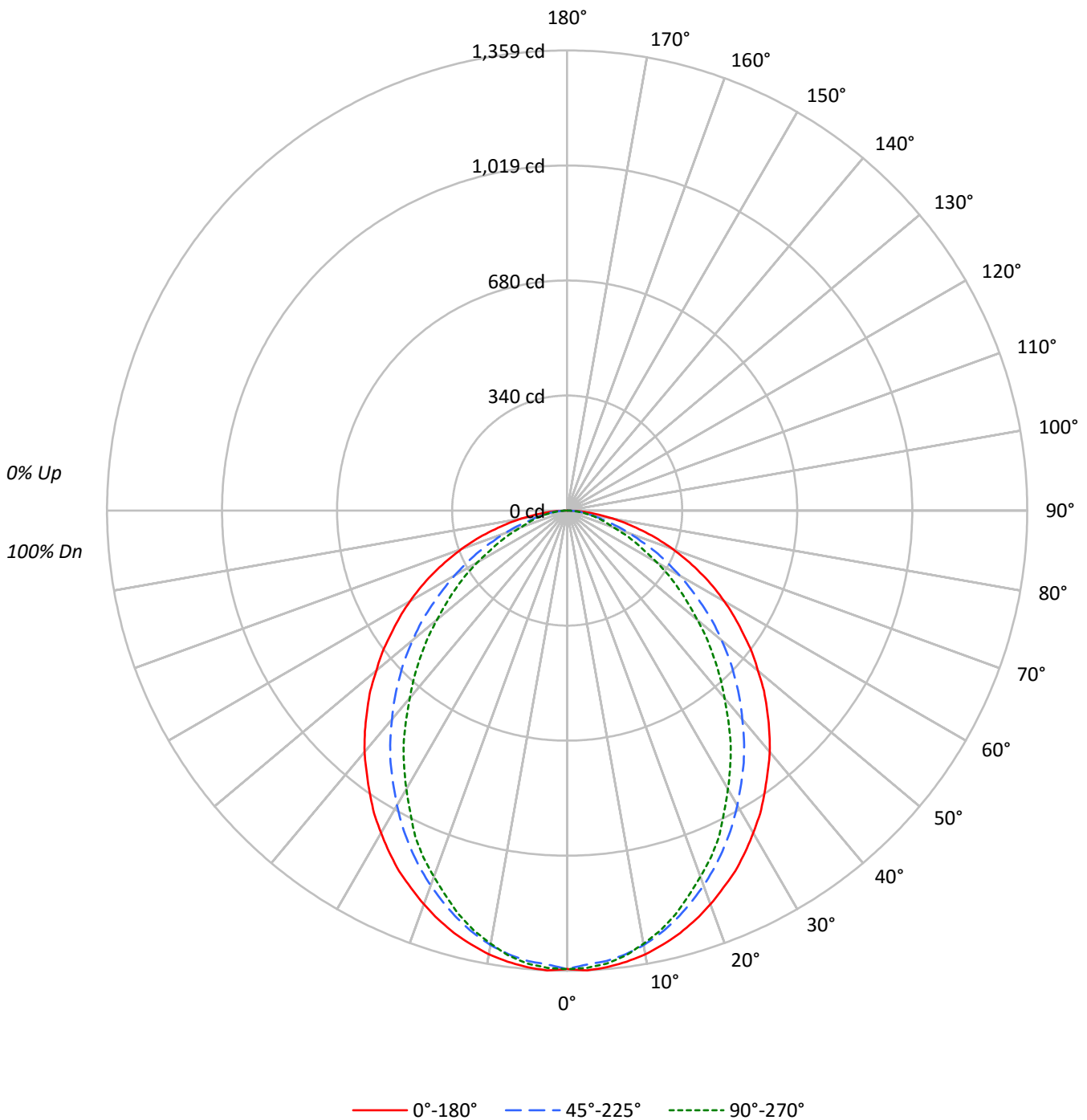
Input Watts (W): 34.8  
Input Voltage (V): 120  
Input Current (A<sub>in</sub>): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



TEST NUMBER: P242552

CATALOG NUMBER: S123RDR-S1000D935-X4F0-XX-UDD-F-W

### Luminous Intensity Polar Plot





TEST NUMBER: P242552

CATALOG NUMBER: S123RDR-S1000D935-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	105	101	98	107	103	99	96	99	96	93	95	93	90	91	89	88	86
2	100	93	86	81	98	91	85	80	87	83	78	84	80	77	81	78	75	73
3	92	82	75	68	90	81	74	68	78	72	67	75	70	66	73	68	64	62
4	85	73	65	59	83	72	64	58	70	63	58	67	62	57	65	60	56	54
5	78	66	57	51	76	65	57	51	63	56	50	61	55	50	59	54	49	47
6	73	60	51	45	71	59	51	45	57	50	45	55	49	44	54	48	44	42
7	67	54	46	40	66	54	46	40	52	45	40	51	44	39	49	44	39	37
8	63	50	42	36	61	49	41	36	48	41	36	47	40	36	46	40	35	34
9	59	46	38	33	58	45	38	33	44	37	32	43	37	32	42	36	32	30
10	55	43	35	30	54	42	35	30	41	34	30	40	34	29	39	34	29	28

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

	0°	45°	90°
0°	16410	16410	16410
5°	16472	16246	16339
10°	16380	16041	15987
15°	16203	15666	15500
20°	15961	15196	14843
25°	15712	14670	14201
30°	15383	14062	13294
35°	15044	13452	12462
40°	14733	12734	11432
45°	14324	12027	10503
50°	13873	11222	9463
55°	13411	10302	8493
60°	12989	9316	7425
65°	12439	8252	6362
70°	11752	6925	5135
75°	10748	5451	4833
80°	9577	4830	4446
85°	8094	4270	3964



TEST NUMBER: P242552

CATALOG NUMBER: S123RDR-S1000D935-X4F0-XX-UDD-F-W

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	127.3	4.2
10°-20°	354.0	11.6
20°-30°	509.7	16.7
30°-40°	574.1	18.8
40°-50°	549.1	18.0
50°-60°	449.5	14.7
60°-70°	303.1	9.9
70°-80°	152.0	5.0
80°-90°	39.7	1.3
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°	991.1	32.4
0°-40°	1565.1	51.2
0°-60°	2563.7	83.8
0°-90°	3058.5	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3058.5	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1354	1354	1354	1354	1354	
5°	1354	1348	1335	1345	1343	128
15°	1291	1279	1248	1243	1235	364
25°	1175	1147	1097	1074	1062	540
35°	1017	977	909	862	842	636
45°	836	786	702	639	613	645
55°	635	581	488	424	402	569
65°	434	373	288	234	222	429
75°	230	177	116	105	103	244
85°	58	34	31	28	28	67
90°	0	0	0	0	0	



TEST NUMBER: P242552

CATALOG NUMBER: S123RDR-S1000D935-X4F0-XX-UDD-F-W

**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1353.8	1353.8	1353.8	1353.8	1353.8
2.5°	1359.3	1354.9	1341.7	1353.8	1351.6
5°	1353.8	1348.3	1335.2	1345.0	1342.8
7.5°	1343.9	1338.4	1322.0	1328.6	1325.3
10°	1330.8	1323.1	1303.3	1304.4	1298.9
12.5°	1312.1	1303.3	1278.1	1277.0	1270.4
15°	1291.2	1279.2	1248.4	1242.9	1235.2
17.5°	1266.0	1252.8	1214.4	1203.4	1192.4
20°	1237.4	1219.9	1178.1	1163.9	1150.7
22.5°	1205.6	1184.7	1139.7	1121.0	1109.0
25°	1174.8	1147.4	1096.9	1073.8	1061.8
27.5°	1137.5	1107.9	1053.0	1022.2	1003.6
30°	1099.1	1066.1	1004.7	967.3	949.8
32.5°	1060.7	1022.2	956.3	914.6	896.0
35°	1016.7	977.2	909.1	861.9	842.2
37.5°	972.8	930.0	858.6	805.9	781.8
40°	931.1	882.8	804.8	747.7	722.5
42.5°	883.9	835.6	754.3	690.6	668.7
45°	835.6	786.2	701.6	639.0	612.7
47.5°	788.4	733.5	650.0	581.9	558.9
50°	735.7	684.0	595.1	527.0	501.8
52.5°	688.4	631.3	543.5	472.1	450.2
55°	634.6	580.8	487.5	423.8	401.9
57.5°	586.3	528.1	433.7	373.3	354.7
60°	535.8	475.4	384.3	325.0	306.3
62.5°	485.3	424.9	333.8	278.9	259.1
65°	433.7	373.3	287.7	233.9	221.8
67.5°	382.1	320.6	237.2	196.5	183.4
70°	331.6	272.3	195.4	157.0	144.9
72.5°	281.1	222.9	154.8	125.2	121.9
75°	229.5	176.8	116.4	105.4	103.2
77.5°	182.3	134.0	91.1	84.5	82.3
80°	137.2	92.2	69.2	65.9	63.7
82.5°	94.4	57.1	49.4	46.1	46.1
85°	58.2	34.0	30.7	28.5	28.5
87.5°	26.4	14.3	14.3	13.2	12.1
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)