

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: P242544

Luminaire Tested: **S123RDR-S340D930-X4F0-XX-UDD-F-W**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P242544  
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-S340D930-X4F0-XX-UDD-F-W  
Description: DEFINE 3 REGRESSED DIRECT RECESSED WITH SATIN FLUSH DIFFUSER  
STANDARD LIGHT ENGINE  
Light Source: (92) 3000K CCT, 90 CRI LEDS  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 991.6 lumens  
Efficiency: N/A  
Efficacy: 85.5 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

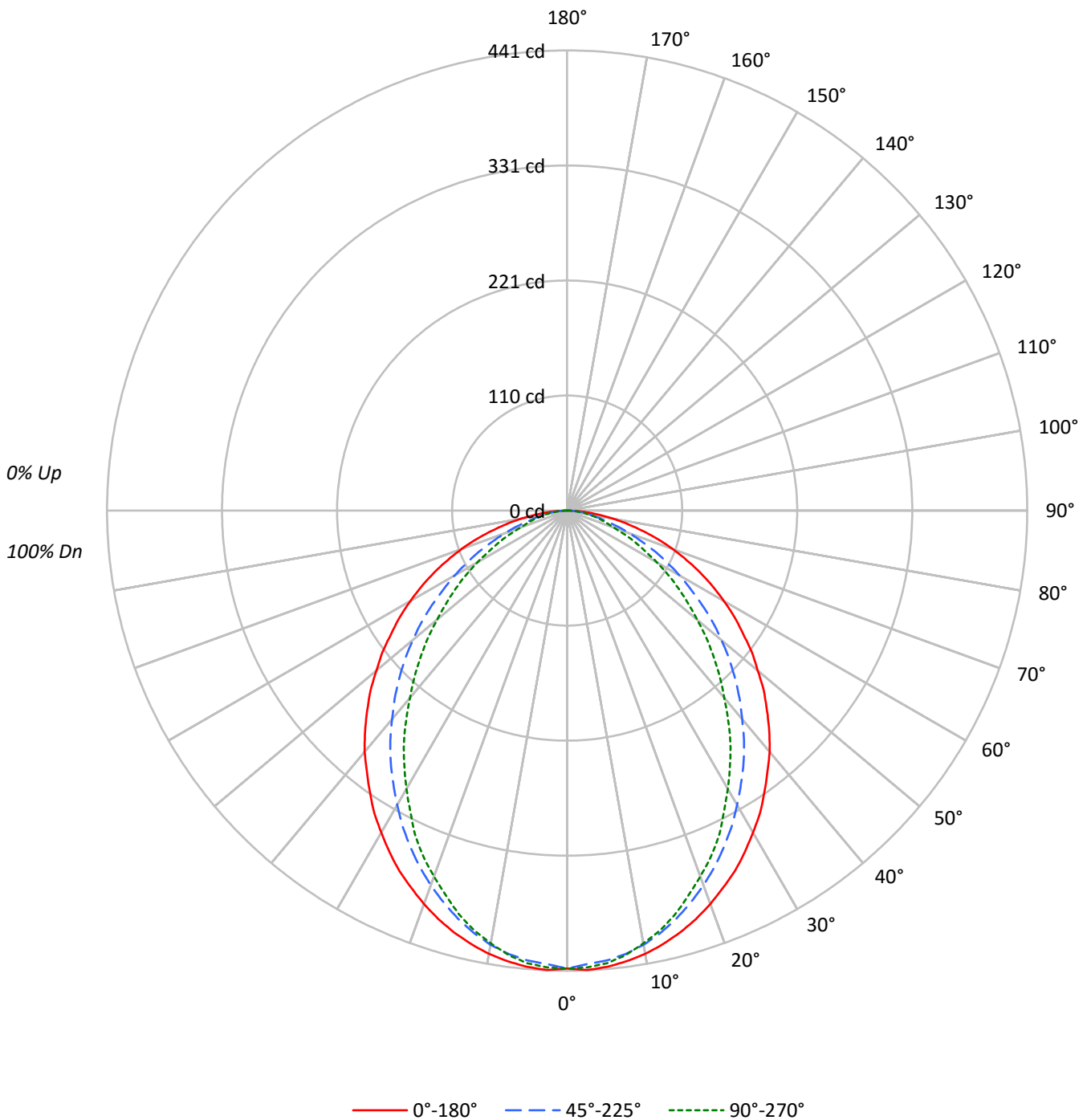
Input Watts (W): 11.6  
Input Voltage (V): 120  
Input Current (A<sub>in</sub>): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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### Luminous Intensity Polar Plot





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**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°	5320	5320	5320
5°	5340	5267	5298
10°	5310	5200	5183
15°	5253	5079	5026
20°	5175	4927	4813
25°	5094	4756	4603
30°	4987	4559	4309
35°	4877	4362	4040
40°	4777	4128	3706
45°	4644	3900	3404
50°	4497	3638	3068
55°	4349	3341	2754
60°	4211	3021	2407
65°	4033	2676	2062
70°	3810	2247	1666
75°	3484	1766	1569
80°	3106	1564	1438
85°	2629	1391	1293



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	41.3	4.2
10°-20°	114.8	11.6
20°-30°	165.3	16.7
30°-40°	186.1	18.8
40°-50°	178.0	18.0
50°-60°	145.7	14.7
60°-70°	98.2	9.9
70°-80°	49.3	5.0
80°-90°	12.9	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°	321.3	32.4
0°-40°	507.4	51.2
0°-60°	831.2	83.8
0°-90°	991.6	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	991.6	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	439	439	439	439	439	
5°	439	437	433	436	435	42
15°	419	415	405	403	400	118
25°	381	372	356	348	344	175
35°	330	317	295	279	273	206
45°	271	255	228	207	199	209
55°	206	188	158	137	130	185
65°	141	121	93	76	72	139
75°	74	57	38	34	34	79
85°	19	11	10	9	9	22
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	438.9	438.9	438.9	438.9	438.9
2.5°	440.7	439.3	435.0	438.9	438.2
5°	438.9	437.1	432.9	436.1	435.4
7.5°	435.7	433.9	428.6	430.7	429.7
10°	431.4	429.0	422.5	422.9	421.1
12.5°	425.4	422.5	414.4	414.0	411.9
15°	418.6	414.7	404.7	403.0	400.5
17.5°	410.4	406.2	393.7	390.2	386.6
20°	401.2	395.5	382.0	377.3	373.1
22.5°	390.9	384.1	369.5	363.5	359.5
25°	380.9	372.0	355.6	348.1	344.2
27.5°	368.8	359.2	341.4	331.4	325.4
30°	356.3	345.7	325.7	313.6	307.9
32.5°	343.9	331.4	310.1	296.5	290.5
35°	329.6	316.8	294.8	279.4	273.0
37.5°	315.4	301.5	278.4	261.3	253.5
40°	301.9	286.2	260.9	242.4	234.2
42.5°	286.6	270.9	244.6	223.9	216.8
45°	270.9	254.9	227.5	207.2	198.6
47.5°	255.6	237.8	210.7	188.7	181.2
50°	238.5	221.8	192.9	170.9	162.7
52.5°	223.2	204.7	176.2	153.1	146.0
55°	205.8	188.3	158.1	137.4	130.3
57.5°	190.1	171.2	140.6	121.0	115.0
60°	173.7	154.1	124.6	105.4	99.3
62.5°	157.3	137.8	108.2	90.4	84.0
65°	140.6	121.0	93.3	75.8	71.9
67.5°	123.9	103.9	76.9	63.7	59.4
70°	107.5	88.3	63.4	50.9	47.0
72.5°	91.1	72.3	50.2	40.6	39.5
75°	74.4	57.3	37.7	34.2	33.5
77.5°	59.1	43.4	29.5	27.4	26.7
80°	44.5	29.9	22.4	21.4	20.6
82.5°	30.6	18.5	16.0	15.0	15.0
85°	18.9	11.0	10.0	9.3	9.3
87.5°	8.5	4.6	4.6	4.3	3.9
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)