

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: P242525

Luminaire Tested: **S123RDR-S340D927-X4F0-XX-UDD-F-W**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P242525  
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-S340D927-X4F0-XX-UDD-F-W  
Description: DEFINE 3 REGRESSED DIRECT RECESSED WITH SATIN FLUSH DIFFUSER  
STANDARD LIGHT ENGINE  
Light Source: (92) 2700K CCT, 90 CRI LEDS  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 963.5 lumens  
Efficiency: N/A  
Efficacy: 83.1 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

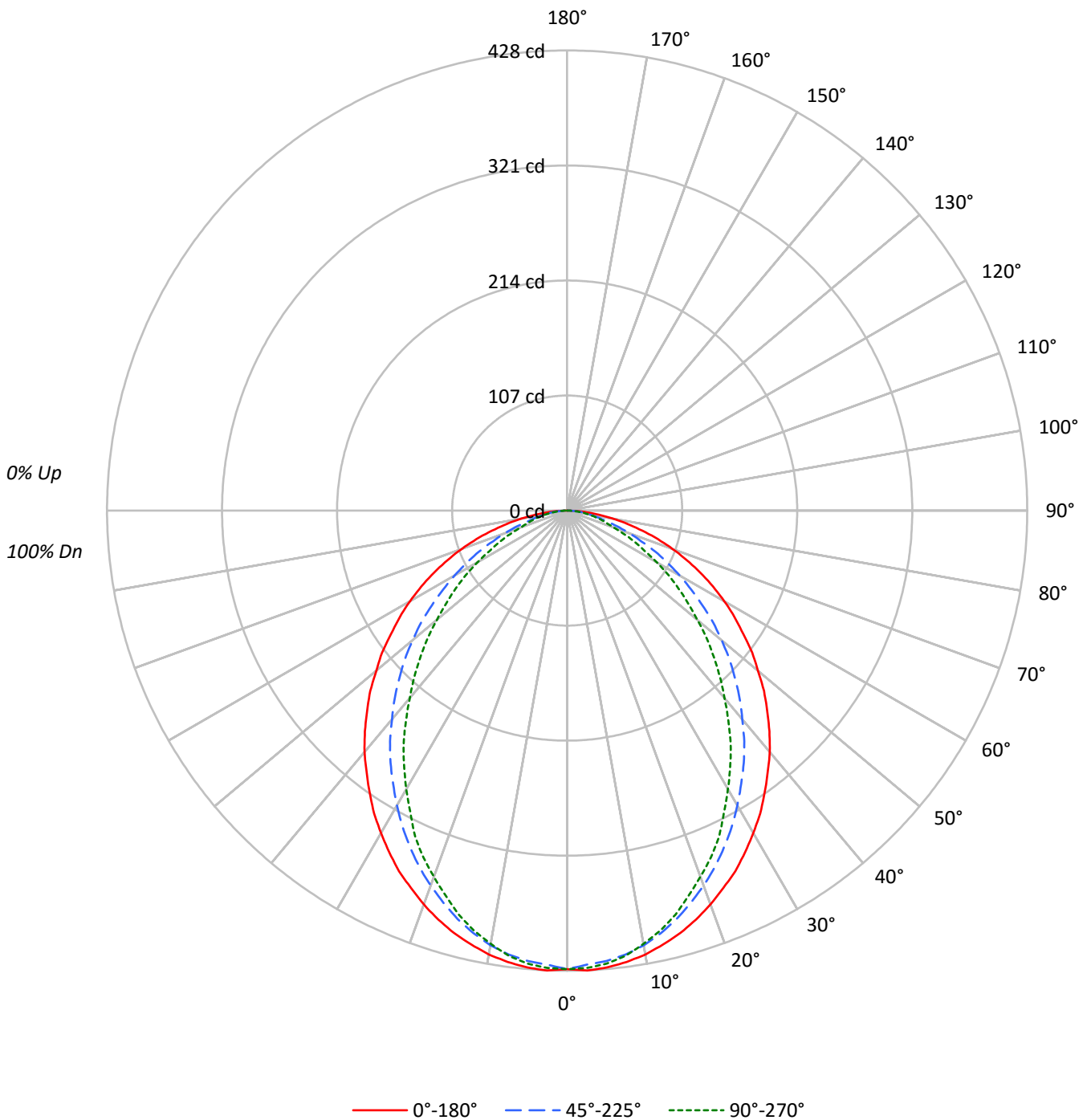
Input Watts (W): 11.6  
Input Voltage (V): 120  
Input Current (A<sub>in</sub>): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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	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					100			
1	110	105	101	98	107	103	99	96	99	96	93	95	93	90	91	89	88	86					86			
2	100	93	86	81	98	91	85	80	87	83	78	84	80	77	81	78	75	73					73			
3	92	82	75	68	90	81	74	68	78	72	67	75	70	66	73	68	64	62					62			
4	85	73	65	59	83	72	64	58	70	63	58	67	62	57	65	60	56	54					54			
5	78	66	57	51	76	65	57	51	63	56	50	61	55	50	59	54	49	47					47			
6	73	60	51	45	71	59	51	45	57	50	45	55	49	44	54	48	44	42					42			
7	67	54	46	40	66	54	46	40	52	45	40	51	44	39	49	44	39	37					37			
8	63	50	42	36	61	49	41	36	48	41	36	47	40	36	46	40	35	34					34			
9	59	46	38	33	58	45	38	33	44	37	32	43	37	32	42	36	32	30					30			
10	55	43	35	30	54	42	35	30	41	34	30	40	34	29	39	34	29	28					28			

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

	0°	45°	90°
0°	5170	5170	5170
5°	5189	5118	5147
10°	5160	5054	5037
15°	5105	4935	4883
20°	5028	4787	4676
25°	4950	4621	4474
30°	4846	4430	4188
35°	4740	4238	3926
40°	4641	4011	3601
45°	4512	3788	3308
50°	4369	3536	2981
55°	4224	3246	2675
60°	4092	2936	2339
65°	3918	2599	2005
70°	3703	2183	1620
75°	3386	1719	1522
80°	3016	1522	1403
85°	2545	1349	1252



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	40.1	4.2
10°-20°	111.5	11.6
20°-30°	160.6	16.7
30°-40°	180.8	18.8
40°-50°	173.0	18.0
50°-60°	141.6	14.7
60°-70°	95.5	9.9
70°-80°	47.9	5.0
80°-90°	12.5	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°	312.2	32.4
0°-40°	493.0	51.2
0°-60°	807.6	83.8
0°-90°	963.5	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	963.5	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	426	426	426	426	426	
5°	426	425	421	424	423	40
15°	407	403	393	392	389	115
25°	370	362	346	338	334	170
35°	320	308	286	272	265	200
45°	263	248	221	201	193	203
55°	200	183	154	134	127	179
65°	137	118	91	74	70	135
75°	72	56	37	33	32	77
85°	18	11	10	9	9	21
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	426.5	426.5	426.5	426.5	426.5
2.5°	428.2	426.8	422.7	426.5	425.8
5°	426.5	424.7	420.6	423.7	423.0
7.5°	423.4	421.6	416.4	418.5	417.5
10°	419.2	416.8	410.6	410.9	409.2
12.5°	413.3	410.6	402.6	402.3	400.2
15°	406.8	403.0	393.3	391.5	389.1
17.5°	398.8	394.7	382.5	379.1	375.6
20°	389.8	384.3	371.1	366.6	362.5
22.5°	379.8	373.2	359.0	353.1	349.3
25°	370.1	361.5	345.5	338.3	334.5
27.5°	358.3	349.0	331.7	322.0	316.1
30°	346.2	335.9	316.5	304.7	299.2
32.5°	334.1	322.0	301.3	288.1	282.2
35°	320.3	307.8	286.4	271.5	265.3
37.5°	306.5	293.0	270.5	253.9	246.3
40°	293.3	278.1	253.5	235.5	227.6
42.5°	278.4	263.2	237.6	217.6	210.6
45°	263.2	247.7	221.0	201.3	193.0
47.5°	248.3	231.1	204.8	183.3	176.1
50°	231.7	215.5	187.5	166.0	158.1
52.5°	216.9	198.9	171.2	148.7	141.8
55°	199.9	183.0	153.6	133.5	126.6
57.5°	184.7	166.4	136.6	117.6	111.7
60°	168.8	149.8	121.1	102.4	96.5
62.5°	152.9	133.9	105.1	87.9	81.6
65°	136.6	117.6	90.6	73.7	69.9
67.5°	120.4	101.0	74.7	61.9	57.8
70°	104.5	85.8	61.6	49.5	45.7
72.5°	88.5	70.2	48.8	39.4	38.4
75°	72.3	55.7	36.7	33.2	32.5
77.5°	57.4	42.2	28.7	26.6	25.9
80°	43.2	29.1	21.8	20.8	20.1
82.5°	29.7	18.0	15.6	14.5	14.5
85°	18.3	10.7	9.7	9.0	9.0
87.5°	8.3	4.5	4.5	4.2	3.8
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)