

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: P243351

Luminaire Tested: **S123DR-H340D927-X4F0-XX-UDD-D-W**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P243351
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1802-639-54)
Test Lab: INNOVATION CENTER
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: NEO-RAY
Catalog Number: S123DR-H340D927-X4F0-XX-UDD-D-W
Description: DEFINE 3 DIRECT RECESSED WITH SATIN DROP DIFFUSER.
HIGH PERFORMANCE LIGHT ENGINE
Light Source: (184) 2700K CCT, 90 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 1079.4 lumens
Efficiency: N/A
Efficacy: 96.4 lumens/watt
Spacing Criteria (0/90/45): 1.2 / 1.26 / 1.37
Luminous Opening: Rectangular w/ Sides (W: 0.23' x L: 3.88' x H: 0.08')
CIE Type: Direct

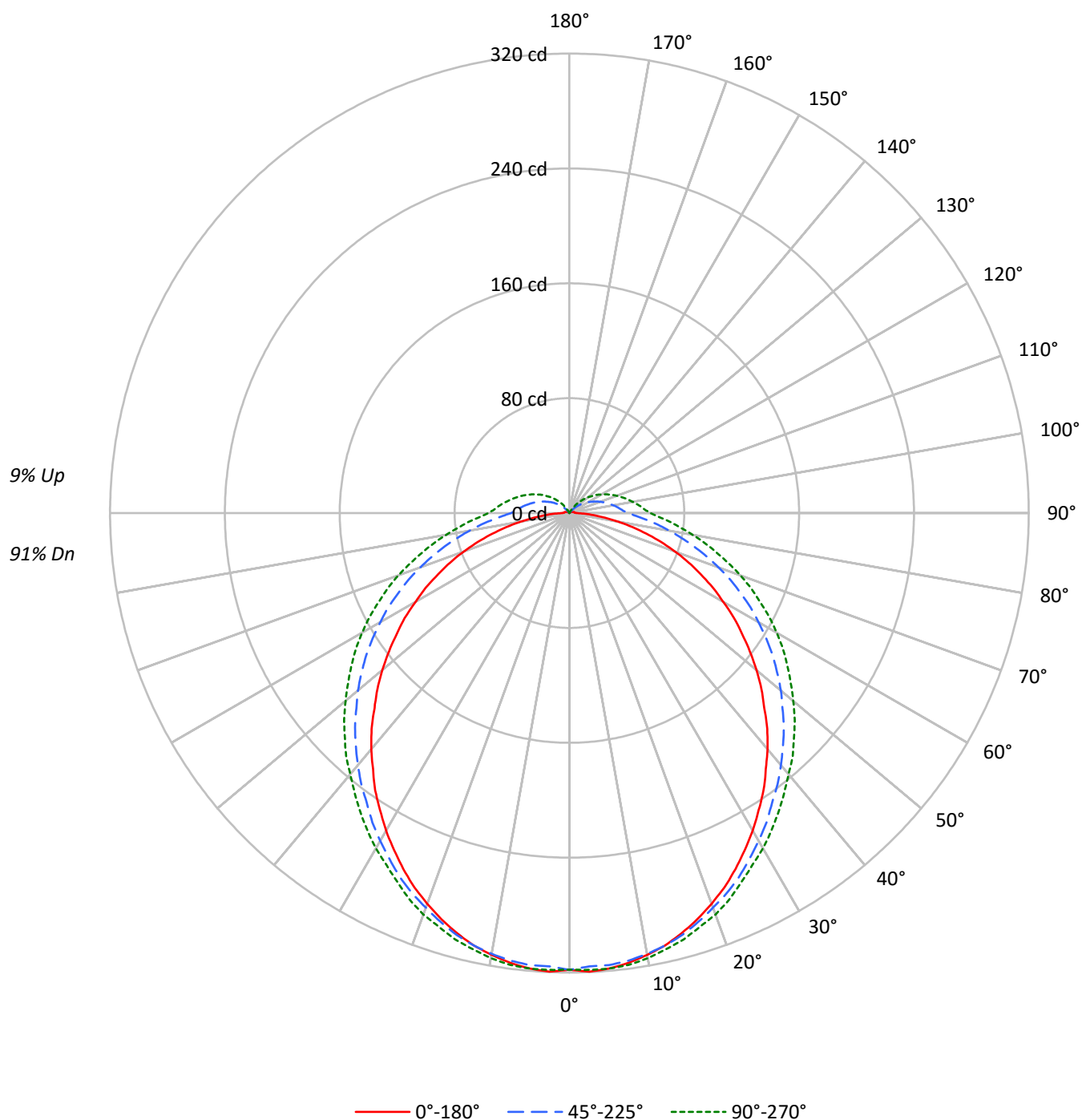
Input Watts (W): 11.2
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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			
RW	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10	0		
RCR																				
0	117	117	117	117	113	113	113	113	106	106	106	100	100	100	94	94	94	91		
1	105	100	95	90	101	96	92	88	91	87	84	85	82	80	80	78	76	73		
2	95	86	79	72	91	83	77	71	78	73	68	74	69	65	69	66	62	60		
3	86	75	66	60	83	73	65	58	69	62	56	65	59	54	61	56	52	50		
4	79	66	57	50	76	64	56	49	61	53	48	57	51	46	54	49	45	42		
5	72	59	50	43	70	57	49	42	54	47	41	51	45	40	49	43	39	36		
6	67	53	44	37	64	52	43	37	49	41	36	46	40	35	44	38	34	31		
7	62	48	39	33	60	47	38	32	44	37	32	42	36	31	40	34	30	28		
8	57	44	35	29	55	43	34	29	41	33	28	39	32	27	37	31	27	25		
9	54	40	32	26	52	39	31	26	37	30	25	36	29	25	34	28	24	22		
10	50	37	29	24	49	36	29	23	35	28	23	33	27	22	32	26	22	20		

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	3855	3855	3855
5°	3867	3755	3755
10°	3831	3661	3640
15°	3778	3557	3515
20°	3705	3433	3389
25°	3623	3318	3242
30°	3531	3188	3119
35°	3437	3058	2996
40°	3335	2952	2878
45°	3222	2845	2781
50°	3127	2738	2679
55°	3012	2629	2579
60°	2891	2507	2481
65°	2764	2377	2362
70°	2620	2238	2246
75°	2402	2088	2108
80°	2128	1937	1988
85°	1887	1816	1896

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	30.2	2.8
10°-20°	86.1	8.0
20°-30°	128.9	11.9
30°-40°	154.3	14.3
40°-50°	161.8	15.0
50°-60°	152.1	14.1
60°-70°	127.3	11.8
70°-80°	91.3	8.5
80°-90°	54.7	5.1
90°-100°	34.7	3.2
100°-110°	25.6	2.4
110°-120°	17.1	1.6
120°-130°	9.9	0.9
130°-140°	4.5	0.4
140°-150°	1.0	0.1
150°-160°	0.0	0.0
160°-170°	0.0	0.0
170°-180°	0.0	0.0
0°-30°	245.2	22.7
0°-40°	399.5	37.0
0°-60°	713.3	66.1
0°-90°	986.6	91.4
90°-120°	77.4	7.2
90°-150°	92.8	8.6
90°-180°	93.0	8.6
0°-180°	1079.4	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	318	318	318	318	318	
5°	318	318	316	319	318	30
15°	303	305	304	308	307	85
25°	274	277	280	284	284	126
35°	236	241	246	252	254	147
45°	192	202	211	218	221	149
55°	147	159	173	182	185	132
65°	101	116	131	143	147	100
75°	55	72	90	102	106	59
85°	17	34	54	66	70	17
90°	5	22	40	53	56	3
95°	4	18	35	46	50	3
105°	3	12	27	37	40	3
115°	2	6	19	28	30	2
125°	1	1	12	19	22	1
135°	1	0	5	11	13	1
145°	0	0	0	3	5	0
155°	0	0	0	0	0	0
165°	0	0	0	0	0	0
175°	0	0	0	0	0	0
180°	0	0	0	0	0	0

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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	318.0	318.0	318.0	318.0	318.0
2.5°	319.7	318.7	316.0	319.0	318.4
5°	318.4	318.0	316.0	318.7	318.4
7.5°	316.0	316.0	314.4	317.4	317.4
10°	312.4	313.4	311.7	315.1	314.7
12.5°	308.4	309.7	308.4	312.1	311.1
15°	302.8	304.8	304.1	308.1	307.4
17.5°	296.5	298.8	298.5	302.4	302.1
20°	289.5	292.5	292.5	296.5	297.5
22.5°	282.2	285.5	286.5	290.5	291.2
25°	273.6	277.2	279.6	283.9	283.5
27.5°	264.6	269.0	271.6	276.2	276.2
30°	255.4	260.3	263.6	268.6	269.6
32.5°	245.4	251.4	255.4	260.7	262.0
35°	235.8	241.4	246.1	252.4	254.0
37.5°	224.8	231.8	238.1	244.7	245.7
40°	214.6	222.2	229.2	236.1	237.4
42.5°	204.0	211.9	220.2	227.2	230.2
45°	192.0	201.6	211.2	218.5	221.2
47.5°	181.4	191.0	201.3	209.9	212.9
50°	170.1	180.1	192.3	200.6	203.6
52.5°	158.5	169.5	182.4	191.4	194.3
55°	146.9	159.2	172.8	182.1	185.4
57.5°	136.0	148.2	162.5	172.8	176.4
60°	123.7	137.3	152.2	162.8	166.8
62.5°	112.8	126.7	142.3	152.9	156.9
65°	100.8	115.7	131.3	142.9	146.6
67.5°	89.9	104.5	121.4	133.0	137.0
70°	78.3	93.5	110.4	122.4	126.7
72.5°	66.7	82.9	100.2	112.4	116.1
75°	55.4	72.3	89.9	102.1	106.1
77.5°	44.8	61.7	79.9	92.2	96.5
80°	34.2	51.7	70.6	82.9	87.2
82.5°	24.9	42.8	62.0	74.0	77.9
85°	16.9	34.5	53.7	66.0	70.3
87.5°	9.9	27.9	46.4	58.7	62.3
90°	4.6	21.9	40.5	52.7	56.4
92.5°	4.3	19.6	37.5	49.1	52.7
95°	3.6	17.9	35.2	46.4	50.1
97.5°	3.6	16.2	33.2	44.1	47.4
100°	3.3	14.6	31.2	41.5	44.8
102.5°	3.0	12.9	28.9	39.1	42.4
105°	2.7	11.6	26.9	36.8	39.8
107.5°	2.3	9.9	24.9	34.5	37.5
110°	2.3	8.6	22.9	32.2	35.2

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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	2.0	7.3	20.9	29.8	32.8
115°	1.7	6.0	18.9	27.5	30.5
117.5°	1.7	4.6	16.9	25.5	28.2
120°	1.7	3.6	15.3	23.2	25.9
122.5°	1.3	2.3	13.6	21.2	23.9
125°	1.3	1.3	11.6	18.9	21.6
127.5°	1.0	0.7	9.9	16.9	19.2
130°	1.0	0.7	8.3	14.9	17.2
132.5°	0.7	0.7	6.6	12.9	15.3
135°	0.7	0.3	5.0	10.9	12.9
137.5°	0.7	0.3	3.3	9.0	10.9
140°	0.3	0.3	1.7	7.0	9.0
142.5°	0.3	0.0	0.3	5.3	7.0
145°	0.3	0.0	0.0	3.3	4.6
147.5°	0.3	0.0	0.0	1.7	3.0
150°	0.3	0.0	0.0	0.0	1.0
152.5°	0.0	0.0	0.0	0.0	0.0
155°	0.0	0.0	0.0	0.0	0.0
157.5°	0.0	0.0	0.0	0.0	0.0
160°	0.0	0.0	0.0	0.0	0.0
162.5°	0.0	0.0	0.0	0.0	0.0
165°	0.0	0.0	0.0	0.0	0.0
167.5°	0.0	0.0	0.0	0.0	0.0
170°	0.0	0.0	0.0	0.0	0.0
172.5°	0.0	0.0	0.0	0.0	0.0
175°	0.0	0.0	0.0	0.0	0.0
177.5°	0.0	0.0	0.0	0.0	0.0
180°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)