

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: P243370

Luminaire Tested: **S123DR-H340D930-X4F0-XX-UDD-D-W**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P243370
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-H340D930-X4F0-XX-UDD-D-W
Description: DEFINE 3 DIRECT RECESSED WITH SATIN DROP DIFFUSER.
HIGH PERFORMANCE LIGHT ENGINE
Light Source: (184) 3000K CCT, 90 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 1110.9 lumens
Efficiency: N/A
Efficacy: 99.2 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

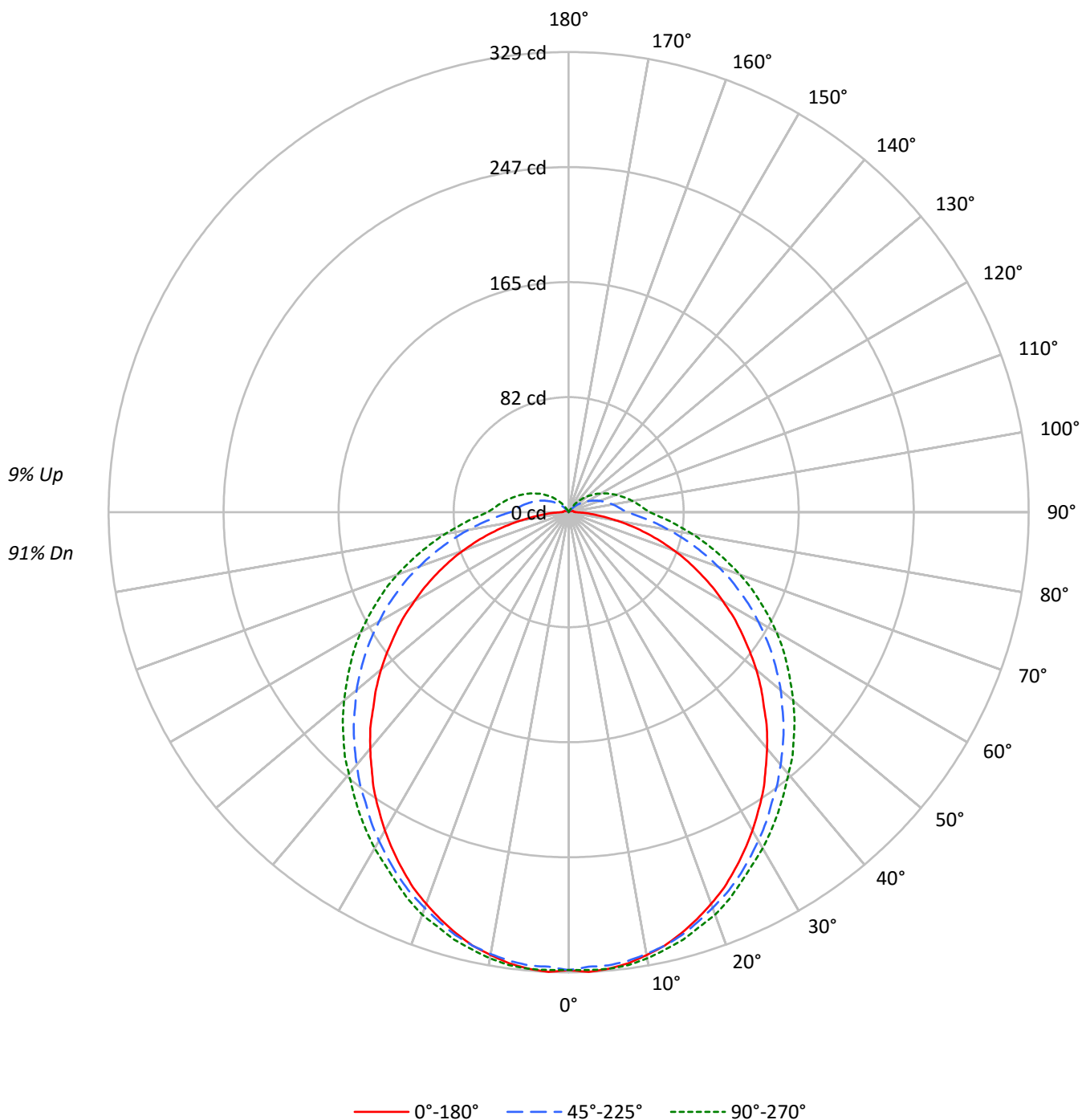
Input Watts (W): 11.2
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	3967	3967	3967
5°	3980	3866	3864
10°	3942	3768	3746
15°	3888	3661	3618
20°	3814	3533	3488
25°	3729	3414	3337
30°	3633	3281	3210
35°	3538	3148	3083
40°	3432	3037	2963
45°	3316	2929	2862
50°	3219	2819	2758
55°	3100	2705	2654
60°	2975	2581	2554
65°	2846	2448	2432
70°	2694	2305	2312
75°	2471	2148	2170
80°	2190	1994	2047
85°	1942	1870	1953

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	31.1	2.8
10°-20°	88.6	8.0
20°-30°	132.7	11.9
30°-40°	158.8	14.3
40°-50°	166.5	15.0
50°-60°	156.5	14.1
60°-70°	131.0	11.8
70°-80°	94.0	8.5
80°-90°	56.3	5.1
90°-100°	35.7	3.2
100°-110°	26.3	2.4
110°-120°	17.6	1.6
120°-130°	10.2	0.9
130°-140°	4.7	0.4
140°-150°	1.1	0.1
150°-160°	0.0	0.0
160°-170°	0.0	0.0
170°-180°	0.0	0.0
0°-30°	252.4	22.7
0°-40°	411.1	37.0
0°-60°	734.1	66.1
0°-90°	1015.4	91.4
90°-120°	79.6	7.2
90°-150°	95.5	8.6
90°-180°	96.0	8.6
0°-180°	1110.9	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	327	327	327	327	327	
5°	328	327	325	328	328	31
15°	312	314	313	317	316	88
25°	282	285	288	292	292	130
35°	243	248	253	260	261	152
45°	198	208	217	225	228	153
55°	151	164	178	187	191	135
65°	104	119	135	147	151	103
75°	57	74	92	105	109	61
85°	17	36	55	68	72	18
90°	5	22	42	54	58	3
95°	4	18	36	48	52	3
105°	3	12	28	38	41	3
115°	2	6	20	28	31	2
125°	1	1	12	20	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°	327.3	327.3	327.3	327.3	327.3
2.5°	329.0	328.0	325.3	328.3	327.7
5°	327.7	327.3	325.3	328.0	327.7
7.5°	325.3	325.3	323.6	326.6	326.6
10°	321.5	322.5	320.8	324.2	323.9
12.5°	317.4	318.8	317.4	321.2	320.1
15°	311.6	313.7	313.0	317.1	316.4
17.5°	305.1	307.5	307.2	311.3	310.9
20°	298.0	301.0	301.0	305.1	306.2
22.5°	290.5	293.9	294.9	299.0	299.7
25°	281.6	285.3	287.7	292.2	291.8
27.5°	272.4	276.8	279.5	284.3	284.3
30°	262.8	267.9	271.3	276.5	277.5
32.5°	252.6	258.7	262.8	268.3	269.6
35°	242.7	248.5	253.3	259.7	261.4
37.5°	231.4	238.6	245.1	251.9	252.9
40°	220.8	228.7	235.8	243.0	244.4
42.5°	209.9	218.1	226.6	233.8	236.9
45°	197.6	207.5	217.4	224.9	227.7
47.5°	186.7	196.6	207.2	216.0	219.1
50°	175.1	185.3	198.0	206.5	209.6
52.5°	163.1	174.4	187.7	196.9	200.0
55°	151.2	163.8	177.8	187.4	190.8
57.5°	139.9	152.6	167.2	177.8	181.6
60°	127.3	141.3	156.7	167.6	171.7
62.5°	116.0	130.4	146.4	157.3	161.4
65°	103.8	119.1	135.2	147.1	150.9
67.5°	92.5	107.5	124.9	136.9	141.0
70°	80.5	96.2	113.7	125.9	130.4
72.5°	68.6	85.3	103.1	115.7	119.5
75°	57.0	74.4	92.5	105.1	109.2
77.5°	46.1	63.5	82.3	94.9	99.3
80°	35.2	53.2	72.7	85.3	89.8
82.5°	25.6	44.0	63.8	76.1	80.2
85°	17.4	35.5	55.3	67.9	72.4
87.5°	10.2	28.7	47.8	60.4	64.2
90°	4.8	22.5	41.6	54.3	58.0
92.5°	4.4	20.1	38.6	50.5	54.3
95°	3.8	18.4	36.2	47.8	51.5
97.5°	3.8	16.7	34.1	45.4	48.8
100°	3.4	15.0	32.1	42.7	46.1
102.5°	3.1	13.3	29.7	40.3	43.7
105°	2.7	11.9	27.6	37.9	41.0
107.5°	2.4	10.2	25.6	35.5	38.6
110°	2.4	8.9	23.6	33.1	36.2

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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	2.0	7.5	21.5	30.7	33.8
115°	1.7	6.1	19.5	28.3	31.4
117.5°	1.7	4.8	17.4	26.3	29.0
120°	1.7	3.8	15.7	23.9	26.6
122.5°	1.4	2.4	14.0	21.8	24.6
125°	1.4	1.4	11.9	19.5	22.2
127.5°	1.0	0.7	10.2	17.4	19.8
130°	1.0	0.7	8.5	15.4	17.7
132.5°	0.7	0.7	6.8	13.3	15.7
135°	0.7	0.3	5.1	11.3	13.3
137.5°	0.7	0.3	3.4	9.2	11.3
140°	0.3	0.3	1.7	7.2	9.2
142.5°	0.3	0.0	0.3	5.5	7.2
145°	0.3	0.0	0.0	3.4	4.8
147.5°	0.3	0.0	0.0	1.7	3.1
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)