

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: P243375

Luminaire Tested: **S123DR-H340D935-X4F0-XX-UDD-D-W**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P243375
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-H340D935-X4F0-XX-UDD-D-W
Description: DEFINE 3 DIRECT RECESSED WITH SATIN DROP DIFFUSER.
HIGH PERFORMANCE LIGHT ENGINE
Light Source: (184) 3500K CCT, 90 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 1173.2 lumens
Efficiency: N/A
Efficacy: 104.8 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

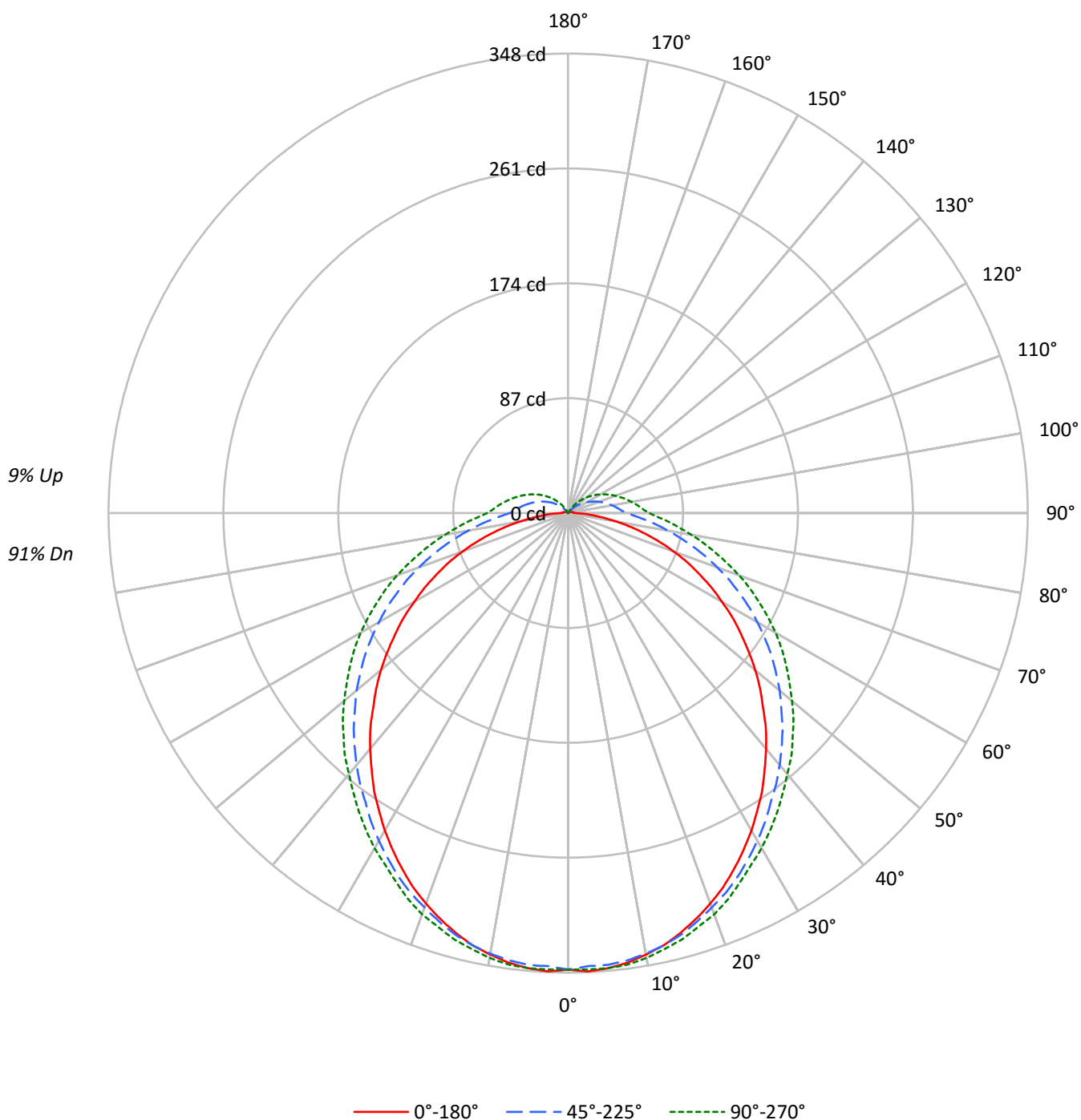
Input Watts (W): 11.2
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	4190	4190	4190
5°	4202	4082	4080
10°	4163	3979	3957
15°	4106	3865	3820
20°	4028	3731	3683
25°	3938	3606	3524
30°	3836	3466	3389
35°	3736	3323	3256
40°	3625	3208	3129
45°	3502	3093	3022
50°	3400	2977	2911
55°	3274	2857	2803
60°	3141	2725	2697
65°	3005	2584	2567
70°	2848	2433	2441
75°	2610	2269	2291
80°	2308	2107	2161
85°	2054	1975	2061

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	32.8	2.8
10°-20°	93.6	8.0
20°-30°	140.1	11.9
30°-40°	167.7	14.3
40°-50°	175.8	15.0
50°-60°	165.3	14.1
60°-70°	138.3	11.8
70°-80°	99.3	8.5
80°-90°	59.5	5.1
90°-100°	37.7	3.2
100°-110°	27.8	2.4
110°-120°	18.6	1.6
120°-130°	10.7	0.9
130°-140°	4.9	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°	266.5	22.7
0°-40°	434.2	37.0
0°-60°	775.3	66.1
0°-90°	1072.3	91.4
90°-120°	84.1	7.2
90°-150°	100.9	8.6
90°-180°	101.0	8.6
0°-180°	1173.2	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	346	346	346	346	346	
5°	346	346	344	346	346	33
15°	329	331	330	335	334	93
25°	297	301	304	308	308	137
35°	256	262	267	274	276	160
45°	209	219	230	238	240	161
55°	160	173	188	198	202	143
65°	110	126	143	155	159	109
75°	60	79	98	111	115	64
85°	18	38	58	72	76	19
90°	5	24	44	57	61	3
95°	4	20	38	50	54	3
105°	3	13	29	40	43	3
115°	2	6	20	30	33	2
125°	1	1	13	20	23	1
135°	1	0	5	12	14	1
145°	0	0	0	4	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°	345.7	345.7	345.7	345.7	345.7
2.5°	347.5	346.4	343.5	346.7	346.0
5°	346.0	345.7	343.5	346.4	346.0
7.5°	343.5	343.5	341.7	344.9	344.9
10°	339.5	340.6	338.8	342.4	342.1
12.5°	335.2	336.7	335.2	339.2	338.1
15°	329.1	331.2	330.5	334.8	334.1
17.5°	322.2	324.8	324.4	328.7	328.4
20°	314.7	317.9	317.9	322.2	323.3
22.5°	306.7	310.3	311.4	315.7	316.5
25°	297.4	301.3	303.9	308.5	308.2
27.5°	287.6	292.3	295.2	300.2	300.2
30°	277.5	282.9	286.6	292.0	293.0
32.5°	266.7	273.2	277.5	283.3	284.7
35°	256.3	262.4	267.4	274.3	276.1
37.5°	244.4	251.9	258.8	266.0	267.1
40°	233.2	241.5	249.1	256.6	258.1
42.5°	221.7	230.3	239.3	246.9	250.1
45°	208.7	219.1	229.6	237.5	240.4
47.5°	197.2	207.6	218.8	228.2	231.4
50°	184.9	195.7	209.1	218.1	221.3
52.5°	172.3	184.2	198.2	208.0	211.2
55°	159.7	173.0	187.8	197.9	201.5
57.5°	147.8	161.1	176.6	187.8	191.8
60°	134.4	149.2	165.4	177.0	181.3
62.5°	122.5	137.7	154.6	166.2	170.5
65°	109.6	125.8	142.7	155.4	159.3
67.5°	97.7	113.5	131.9	144.5	148.9
70°	85.1	101.6	120.0	133.0	137.7
72.5°	72.4	90.1	108.9	122.2	126.2
75°	60.2	78.6	97.7	111.0	115.3
77.5°	48.7	67.0	86.9	100.2	104.9
80°	37.1	56.2	76.8	90.1	94.8
82.5°	27.0	46.5	67.4	80.4	84.7
85°	18.4	37.5	58.4	71.7	76.4
87.5°	10.8	30.3	50.5	63.8	67.8
90°	5.0	23.8	44.0	57.3	61.3
92.5°	4.7	21.3	40.7	53.3	57.3
95°	4.0	19.5	38.2	50.5	54.4
97.5°	4.0	17.7	36.0	47.9	51.5
100°	3.6	15.9	33.9	45.1	48.7
102.5°	3.2	14.1	31.4	42.5	46.1
105°	2.9	12.6	29.2	40.0	43.3
107.5°	2.5	10.8	27.0	37.5	40.7
110°	2.5	9.4	24.9	35.0	38.2

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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	2.2	7.9	22.7	32.4	35.7
115°	1.8	6.5	20.5	29.9	33.2
117.5°	1.8	5.0	18.4	27.8	30.6
120°	1.8	4.0	16.6	25.2	28.1
122.5°	1.4	2.5	14.8	23.1	26.0
125°	1.4	1.4	12.6	20.5	23.4
127.5°	1.1	0.7	10.8	18.4	20.9
130°	1.1	0.7	9.0	16.2	18.7
132.5°	0.7	0.7	7.2	14.1	16.6
135°	0.7	0.4	5.4	11.9	14.1
137.5°	0.7	0.4	3.6	9.7	11.9
140°	0.4	0.4	1.8	7.6	9.7
142.5°	0.4	0.0	0.4	5.8	7.6
145°	0.4	0.0	0.0	3.6	5.0
147.5°	0.4	0.0	0.0	1.8	3.2
150°	0.4	0.0	0.0	0.0	1.1
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)