

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: P242436

Luminaire Tested: **S123DR-S340D840-X4F0-XX-UDD-F-W**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P242436
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1802-639-11)
Test Lab: INNOVATION CENTER
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: NEO-RAY
Catalog Number: S123DR-S340D840-X4F0-XX-UDD-F-W
Description: DEFINE 3 DIRECT RECESSED WITH SATIN FLUSH DIFFUSER
STANDARD LIGHT ENGINE
Light Source: (92) 4000K CCT, 80 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 1334.6 lumens
Efficiency: N/A
Efficacy: 115.1 lumens/watt
Spacing Criteria (0/90/45): 1.21 / 1.18 / 1.3
Luminous Opening: Rectangular (W 0.23' x L: 3.88' x H: 0')
CIE Type: Direct

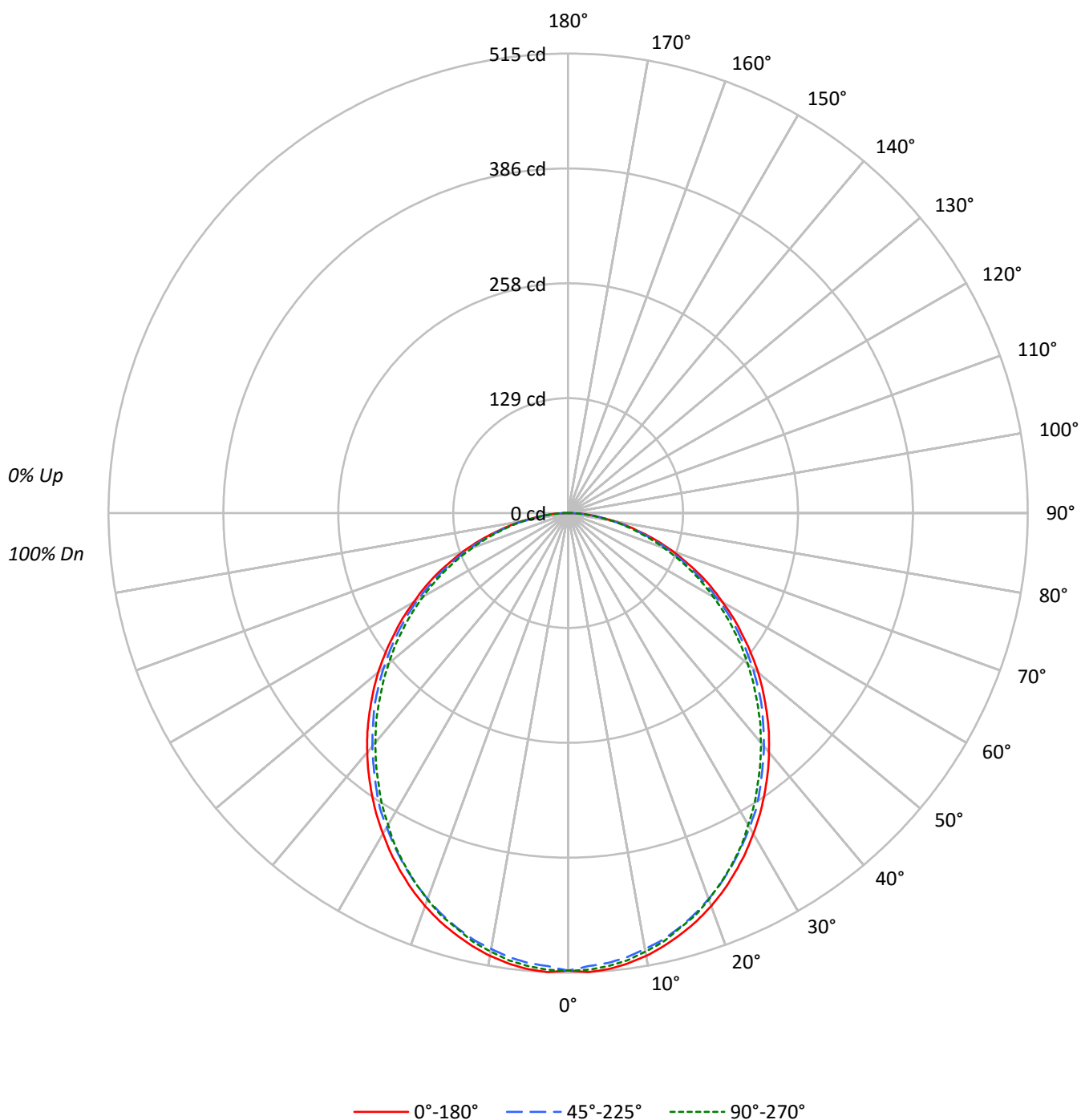
Input Watts (W): 11.6
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	50	30	10
RCR																				
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100		
1	109	104	100	96	106	102	98	95	98	94	92	94	91	89	90	88	86	84		
2	99	91	84	79	97	89	83	78	86	80	76	82	78	74	79	76	72	70		
3	91	80	72	66	88	79	71	65	76	69	64	73	67	63	70	66	62	59		
4	83	71	62	56	81	70	62	55	67	60	55	65	59	54	63	58	53	51		
5	76	64	55	48	74	63	54	48	60	53	47	58	52	47	57	51	46	44		
6	71	57	49	42	69	56	48	42	55	47	42	53	46	41	51	46	41	39		
7	66	52	43	37	64	51	43	37	50	42	37	48	42	37	47	41	36	34		
8	61	48	39	33	60	47	39	33	46	38	33	44	38	33	43	37	33	31		
9	57	44	36	30	56	43	35	30	42	35	30	41	34	30	40	34	30	28		
10	54	40	33	27	52	40	32	27	39	32	27	38	32	27	37	31	27	25		

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	6216	6216	6216
5°	6244	6159	6202
10°	6203	6105	6143
15°	6131	6037	6047
20°	6046	5937	5944
25°	5933	5820	5808
30°	5807	5690	5648
35°	5676	5552	5481
40°	5540	5400	5317
45°	5389	5261	5132
50°	5239	5088	4948
55°	5040	4911	4761
60°	4841	4703	4553
65°	4666	4477	4337
70°	4405	4221	4033
75°	4028	3882	3719
80°	3630	3476	3448
85°	3185	3060	2948

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	48.3	3.6
10°-20°	136.5	10.2
20°-30°	201.6	15.1
30°-40°	235.5	17.6
40°-50°	236.7	17.7
50°-60°	207.9	15.6
60°-70°	154.9	11.6
70°-80°	88.1	6.6
80°-90°	25.0	1.9
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°	386.5	29.0
0°-40°	621.9	46.6
0°-60°	1066.6	79.9
0°-90°	1334.6	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1334.6	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	513	513	513	513	513	
5°	513	511	506	511	510	49
15°	489	487	481	485	482	138
25°	444	441	435	436	434	204
35°	384	381	375	373	370	240
45°	314	313	307	302	299	243
55°	238	238	232	228	225	214
65°	163	160	156	153	151	161
75°	86	84	83	81	79	92
85°	23	22	22	21	21	26
90°	0	0	0	0	0	

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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	512.8	512.8	512.8	512.8	512.8
2.5°	515.0	513.2	508.4	512.8	512.4
5°	513.2	511.0	506.2	510.6	509.7
7.5°	509.3	507.1	502.2	506.2	505.7
10°	504.0	501.8	496.0	500.0	499.1
12.5°	496.9	495.2	489.9	492.5	492.1
15°	488.6	486.8	481.1	484.6	481.9
17.5°	479.3	477.1	471.4	474.0	473.1
20°	468.7	466.1	460.3	462.1	460.8
22.5°	456.8	454.2	448.4	449.7	448.0
25°	443.6	440.9	435.2	435.6	434.3
27.5°	429.9	427.3	421.1	421.5	420.2
30°	414.9	412.7	406.5	406.5	403.5
32.5°	399.9	396.8	392.4	389.3	388.0
35°	383.6	381.0	375.2	372.6	370.4
37.5°	367.3	363.8	358.0	354.9	353.6
40°	350.1	347.5	341.3	337.8	336.0
42.5°	332.9	329.8	323.6	320.1	318.4
45°	314.4	312.6	306.9	301.6	299.4
47.5°	296.3	293.7	288.4	283.1	281.3
50°	277.8	275.6	269.8	265.0	262.4
52.5°	258.4	257.1	250.9	246.9	244.3
55°	238.5	238.1	232.4	227.5	225.3
57.5°	220.0	218.3	213.9	209.4	206.8
60°	199.7	199.3	194.0	190.0	187.8
62.5°	181.7	180.3	175.0	171.1	169.8
65°	162.7	160.5	156.1	152.6	151.2
67.5°	142.4	140.7	137.1	134.0	132.3
70°	124.3	121.7	119.1	116.0	113.8
72.5°	105.4	103.6	100.5	97.9	97.0
75°	86.0	84.2	82.9	80.7	79.4
77.5°	68.8	67.9	66.1	64.4	64.4
80°	52.0	50.7	49.8	49.4	49.4
82.5°	35.7	35.7	35.7	34.8	34.4
85°	22.9	22.0	22.0	21.2	21.2
87.5°	11.5	10.1	9.7	9.3	9.3
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)