

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: P243361

Luminaire Tested: **S123DR-H340D835-X4F0-XX-UDD-D-W**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P243361
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-H340D835-X4F0-XX-UDD-D-W
Description: DEFINE 3 DIRECT RECESSED WITH SATIN DROP DIFFUSER.
HIGH PERFORMANCE LIGHT ENGINE
Light Source: (184) 3500K CCT, 80 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 1362.6 lumens
Efficiency: N/A
Efficacy: 121.7 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

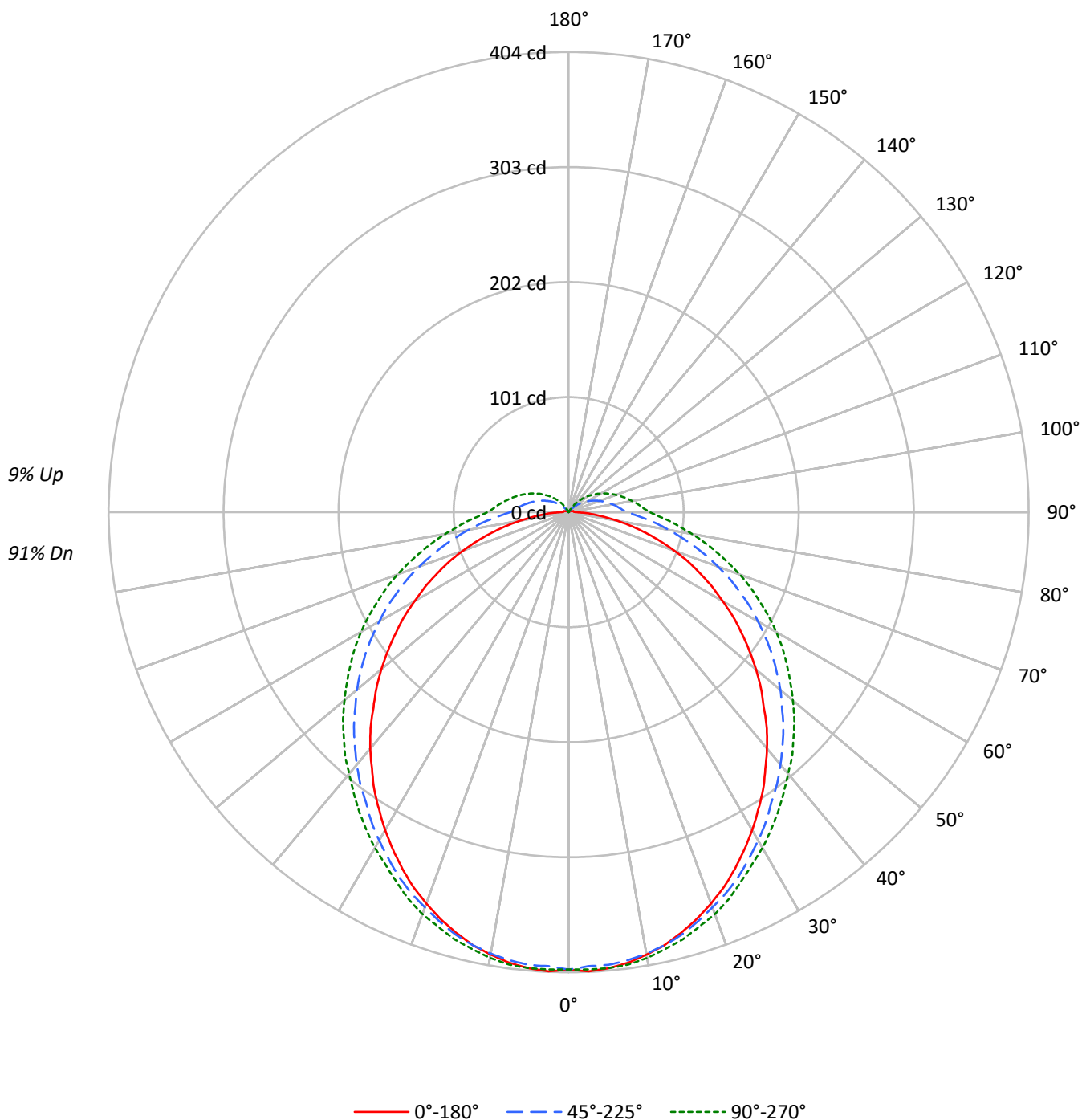
Input Watts (W): 11.2
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	4867	4867	4867
5°	4881	4742	4739
10°	4836	4621	4595
15°	4769	4490	4438
20°	4678	4333	4278
25°	4574	4188	4093
30°	4456	4025	3937
35°	4338	3860	3782
40°	4211	3726	3634
45°	4068	3593	3510
50°	3949	3457	3381
55°	3803	3318	3255
60°	3648	3166	3133
65°	3490	3002	2981
70°	3306	2826	2835
75°	3030	2634	2662
80°	2681	2447	2510
85°	2389	2293	2392

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	38.1	2.8
10°-20°	108.7	8.0
20°-30°	162.7	11.9
30°-40°	194.7	14.3
40°-50°	204.2	15.0
50°-60°	192.0	14.1
60°-70°	160.7	11.8
70°-80°	115.3	8.5
80°-90°	69.1	5.1
90°-100°	43.8	3.2
100°-110°	32.3	2.4
110°-120°	21.6	1.6
120°-130°	12.5	0.9
130°-140°	5.7	0.4
140°-150°	1.3	0.1
150°-160°	0.0	0.0
160°-170°	0.0	0.0
170°-180°	0.0	0.0
0°-30°	309.5	22.7
0°-40°	504.3	37.0
0°-60°	900.4	66.1
0°-90°	1245.4	91.4
90°-120°	97.7	7.2
90°-150°	117.2	8.6
90°-180°	117.0	8.6
0°-180°	1362.6	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	402	402	402	402	402	
5°	402	402	399	402	402	38
15°	382	385	384	389	388	108
25°	345	350	353	358	358	159
35°	298	305	311	319	321	186
45°	242	254	267	276	279	188
55°	186	201	218	230	234	166
65°	127	146	166	180	185	126
75°	70	91	113	129	134	74
85°	21	44	68	83	89	22
90°	6	28	51	67	71	4
95°	5	23	44	59	63	4
105°	3	15	34	46	50	4
115°	2	8	24	35	38	2
125°	2	2	15	24	27	1
135°	1	0	6	14	16	1
145°	0	0	0	4	6	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°	401.5	401.5	401.5	401.5	401.5
2.5°	403.6	402.3	399.0	402.7	401.9
5°	401.9	401.5	399.0	402.3	401.9
7.5°	399.0	399.0	396.9	400.6	400.6
10°	394.4	395.6	393.5	397.7	397.3
12.5°	389.3	391.0	389.3	393.9	392.7
15°	382.2	384.7	383.9	388.9	388.1
17.5°	374.3	377.2	376.8	381.8	381.4
20°	365.5	369.2	369.2	374.3	375.5
22.5°	356.3	360.4	361.7	366.7	367.6
25°	345.4	350.0	352.9	358.3	357.9
27.5°	334.1	339.5	342.9	348.7	348.7
30°	322.3	328.6	332.8	339.1	340.3
32.5°	309.8	317.3	322.3	329.0	330.7
35°	297.6	304.8	310.6	318.6	320.7
37.5°	283.8	292.6	300.6	308.9	310.2
40°	270.9	280.5	289.3	298.1	299.7
42.5°	257.5	267.5	278.0	286.8	290.5
45°	242.4	254.5	266.7	275.9	279.2
47.5°	229.0	241.1	254.1	265.0	268.8
50°	214.8	227.3	242.8	253.3	257.0
52.5°	200.1	213.9	230.2	241.5	245.3
55°	185.5	200.9	218.1	229.8	234.0
57.5°	171.6	187.1	205.1	218.1	222.7
60°	156.1	173.3	192.2	205.5	210.6
62.5°	142.3	159.9	179.6	193.0	198.0
65°	127.3	146.1	165.8	180.4	185.0
67.5°	113.4	131.9	153.2	167.9	172.9
70°	98.8	118.1	139.4	154.5	159.9
72.5°	84.1	104.7	126.4	141.9	146.5
75°	69.9	91.3	113.4	128.9	134.0
77.5°	56.5	77.9	100.9	116.4	121.8
80°	43.1	65.3	89.2	104.7	110.1
82.5°	31.4	54.0	78.3	93.4	98.4
85°	21.4	43.5	67.8	83.3	88.7
87.5°	12.6	35.2	58.6	74.1	78.7
90°	5.9	27.6	51.1	66.6	71.2
92.5°	5.4	24.7	47.3	62.0	66.6
95°	4.6	22.6	44.4	58.6	63.2
97.5°	4.6	20.5	41.9	55.7	59.9
100°	4.2	18.4	39.4	52.3	56.5
102.5°	3.8	16.3	36.4	49.4	53.6
105°	3.3	14.7	33.9	46.5	50.2
107.5°	2.9	12.6	31.4	43.5	47.3
110°	2.9	10.9	28.9	40.6	44.4

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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	2.5	9.2	26.4	37.7	41.4
115°	2.1	7.5	23.9	34.7	38.5
117.5°	2.1	5.9	21.4	32.2	35.6
120°	2.1	4.6	19.3	29.3	32.7
122.5°	1.7	2.9	17.2	26.8	30.1
125°	1.7	1.7	14.7	23.9	27.2
127.5°	1.3	0.8	12.6	21.4	24.3
130°	1.3	0.8	10.5	18.8	21.8
132.5°	0.8	0.8	8.4	16.3	19.3
135°	0.8	0.4	6.3	13.8	16.3
137.5°	0.8	0.4	4.2	11.3	13.8
140°	0.4	0.4	2.1	8.8	11.3
142.5°	0.4	0.0	0.4	6.7	8.8
145°	0.4	0.0	0.0	4.2	5.9
147.5°	0.4	0.0	0.0	2.1	3.8
150°	0.4	0.0	0.0	0.0	1.3
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)