

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: P242503

Luminaire Tested: **S123DR-S1000D835-X4F0-XX-UDD-D-W**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P242503
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1802-639-15)
Test Lab: INNOVATION CENTER
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: NEO-RAY
Catalog Number: S123DR-S1000D835-X4F0-XX-UDD-D-W
Description: DEFINE 3 DIRECT RECESSED WITH SATIN DROP DIFFUSER
STANDARD LIGHT ENGINE
Light Source: (92) 3500K CCT, 80 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 3934.4 lumens
Efficiency: N/A
Efficacy: 113.1 lumens/watt
Spacing Criteria (0/90/45): 1.2 / 1.25 / 1.37
Luminous Opening: Rectangular w/ Sides (W: 0.23' x L: 3.88' x H: 0.08')
CIE Type: Direct

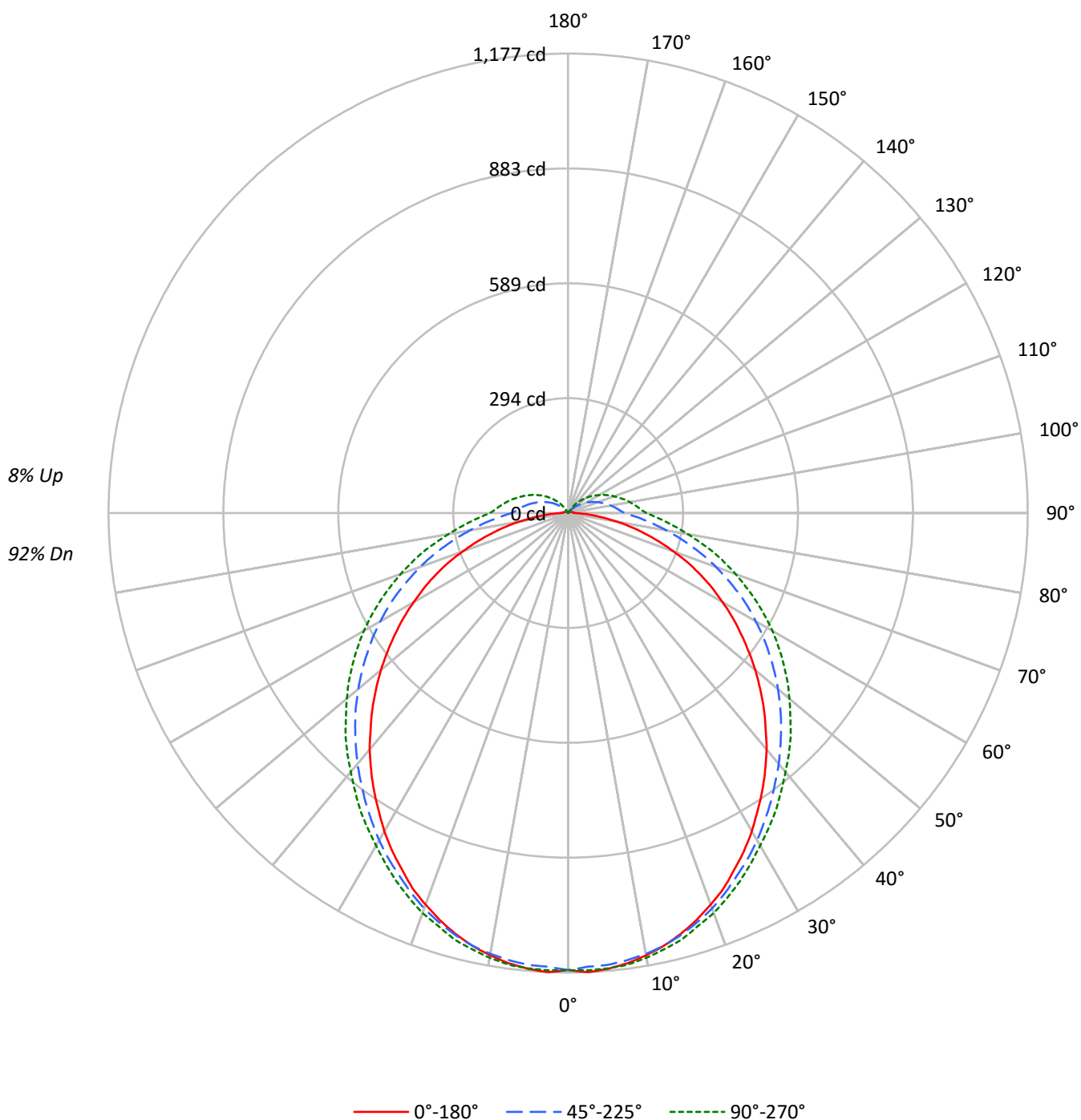
Input Watts (W): 34.8
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	117	117	117	117	113	113	113	113	106	106	106	100	100	100	94	94	94	94	94	92
1	105	100	95	90	102	97	92	88	91	87	84	85	82	80	80	78	76	76	76	73
2	95	86	79	72	92	83	77	71	79	73	68	74	69	65	70	66	63	63	63	60
3	86	75	67	60	83	73	65	59	69	62	56	65	59	54	61	56	52	52	52	50
4	79	66	57	50	76	64	56	49	61	54	48	57	51	46	54	49	45	45	45	42
5	72	59	50	43	70	58	49	42	54	47	41	52	45	40	49	43	39	39	39	36
6	67	53	44	37	64	52	43	37	49	42	36	47	40	35	44	38	34	34	34	32
7	62	48	39	33	60	47	38	32	45	37	32	42	36	31	40	35	30	30	30	28
8	58	44	35	29	56	43	35	29	41	33	28	39	32	28	37	31	27	27	27	25
9	54	40	32	26	52	39	31	26	37	30	25	36	29	25	34	28	24	24	24	22
10	50	37	29	24	49	36	29	24	35	28	23	33	27	23	32	26	22	22	22	20

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	14190	14190	14190
5°	14234	13806	13805
10°	14105	13464	13378
15°	13922	13080	12920
20°	13662	12647	12420
25°	13339	12152	11900
30°	13010	11707	11374
35°	12642	11236	10950
40°	12290	10808	10498
45°	11898	10394	10132
50°	11512	9986	9730
55°	11086	9566	9365
60°	10669	9137	8992
65°	10243	8682	8549
70°	9601	8170	8093
75°	8792	7584	7626
80°	7852	6996	7094
85°	6977	6554	6740

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	111.1	2.8
10°-20°	316.6	8.0
20°-30°	473.4	12.0
30°-40°	565.2	14.4
40°-50°	591.4	15.0
50°-60°	555.0	14.1
60°-70°	463.6	11.8
70°-80°	331.5	8.4
80°-90°	197.2	5.0
90°-100°	123.9	3.2
100°-110°	91.1	2.3
110°-120°	60.8	1.5
120°-130°	34.7	0.9
130°-140°	15.6	0.4
140°-150°	3.3	0.1
150°-160°	0.0	0.0
160°-170°	0.0	0.0
170°-180°	0.0	0.0
0°-30°	901.1	22.9
0°-40°	1466.3	37.3
0°-60°	2612.7	66.4
0°-90°	3605.0	91.6
90°-120°	275.9	7.0
90°-150°	329.4	8.4
90°-180°	329.0	8.4
0°-180°	3934.4	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1171	1171	1171	1171	1171	
5°	1172	1169	1162	1172	1171	111
15°	1116	1120	1118	1131	1130	314
25°	1007	1020	1024	1041	1041	464
35°	867	888	904	923	928	542
45°	709	740	772	796	806	547
55°	541	583	629	663	673	484
65°	374	423	480	518	530	369
75°	203	263	326	368	384	217
85°	62	126	194	237	250	64
90°	17	79	144	188	200	12
95°	14	64	126	166	178	11
105°	10	41	96	131	143	10
115°	6	22	68	98	108	7
125°	4	4	41	68	76	4
135°	3	1	15	38	45	2
145°	1	0	0	10	15	1
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°	1170.7	1170.7	1170.7	1170.7	1170.7
2.5°	1177.1	1173.2	1163.0	1173.2	1172.0
5°	1172.0	1169.4	1161.7	1172.0	1170.7
7.5°	1163.0	1163.0	1155.4	1168.1	1166.9
10°	1150.3	1152.8	1146.4	1159.2	1156.6
12.5°	1135.0	1138.8	1135.0	1146.4	1143.9
15°	1115.8	1119.7	1118.4	1131.1	1129.9
17.5°	1092.9	1100.5	1099.3	1110.7	1108.2
20°	1067.4	1075.0	1077.6	1089.1	1090.3
22.5°	1040.6	1048.3	1052.1	1067.4	1066.1
25°	1007.4	1020.2	1024.0	1040.6	1040.6
27.5°	975.6	989.6	997.2	1011.3	1012.5
30°	941.1	957.7	967.9	983.2	983.2
32.5°	902.9	922.0	936.0	952.6	956.4
35°	867.2	887.6	904.1	923.3	928.4
37.5°	828.9	851.9	871.0	892.7	896.5
40°	790.7	813.6	839.1	860.8	865.9
42.5°	748.6	777.9	804.7	828.9	836.6
45°	709.0	739.6	771.5	795.8	806.0
47.5°	667.0	701.4	737.1	763.9	771.5
50°	626.1	661.9	701.4	730.7	739.6
52.5°	582.8	621.0	665.7	696.3	707.8
55°	540.7	582.8	628.7	663.1	673.3
57.5°	499.9	543.3	593.0	627.4	638.9
60°	456.5	502.4	554.7	590.4	604.5
62.5°	415.7	462.9	519.0	554.7	567.5
65°	373.6	423.4	479.5	517.8	530.5
67.5°	331.6	383.8	440.0	482.0	492.2
70°	286.9	341.8	403.0	443.8	456.5
72.5°	246.1	301.0	364.7	406.8	419.6
75°	202.8	262.7	326.5	368.5	383.8
77.5°	165.8	225.7	289.5	334.1	345.6
80°	126.2	188.7	255.0	298.4	311.2
82.5°	91.8	155.6	223.2	266.5	279.3
85°	62.5	126.2	193.8	237.2	249.9
87.5°	38.3	102.0	167.1	210.4	223.2
90°	16.6	79.1	144.1	187.5	200.2
92.5°	15.3	70.1	133.9	176.0	187.5
95°	14.0	63.8	126.2	165.8	178.5
97.5°	12.8	58.7	118.6	156.9	169.6
100°	11.5	52.3	110.9	147.9	160.7
102.5°	10.2	45.9	103.3	139.0	151.8
105°	10.2	40.8	95.6	131.4	142.8
107.5°	8.9	35.7	88.0	122.4	133.9
110°	7.7	30.6	81.6	114.8	125.0

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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	7.7	25.5	74.0	105.8	117.3
115°	6.4	21.7	67.6	98.2	108.4
117.5°	6.4	16.6	59.9	90.5	100.7
120°	5.1	11.5	53.6	82.9	91.8
122.5°	5.1	7.7	47.2	75.2	84.2
125°	3.8	3.8	40.8	67.6	76.5
127.5°	3.8	2.6	34.4	59.9	68.9
130°	3.8	2.6	28.1	52.3	59.9
132.5°	2.6	2.6	21.7	44.6	53.6
135°	2.6	1.3	15.3	38.3	44.6
137.5°	2.6	1.3	10.2	30.6	37.0
140°	1.3	1.3	5.1	24.2	30.6
142.5°	1.3	0.0	0.0	16.6	23.0
145°	1.3	0.0	0.0	10.2	15.3
147.5°	0.0	0.0	0.0	3.8	8.9
150°	0.0	0.0	0.0	0.0	2.6
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)