

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: P242494

Luminaire Tested: **S123DR-S1000D927-X4F0-XX-UDD-D-W**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P242494
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-S1000D927-X4F0-XX-UDD-D-W
Description: DEFINE 3 DIRECT RECESSED WITH SATIN DROP DIFFUSER
STANDARD LIGHT ENGINE
Light Source: (92) 2700K CCT, 90 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 3116.7 lumens
Efficiency: N/A
Efficacy: 89.6 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

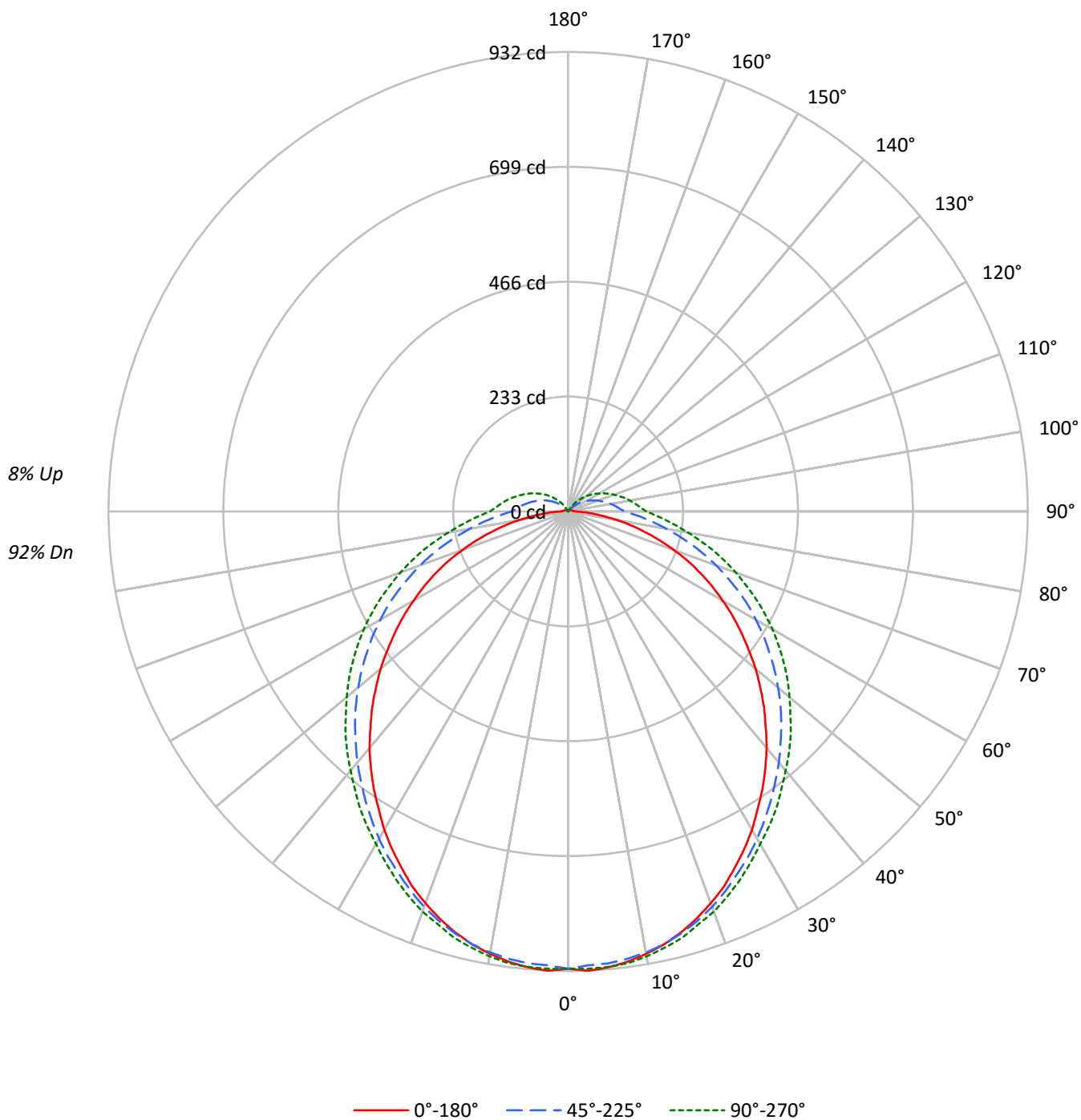
Input Watts (W): 34.8
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	11241	11241	11241
5°	11275	10937	10936
10°	11173	10666	10598
15°	11028	10362	10235
20°	10823	10018	9839
25°	10568	9627	9426
30°	10306	9274	9010
35°	10015	8902	8674
40°	9734	8561	8316
45°	9426	8235	8027
50°	9119	7910	7708
55°	8781	7577	7419
60°	8454	7238	7122
65°	8115	6877	6773
70°	7606	6471	6412
75°	6963	6006	6042
80°	6222	5542	5619
85°	5526	5194	5341

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	88.0	2.8
10°-20°	250.8	8.0
20°-30°	375.0	12.0
30°-40°	447.8	14.4
40°-50°	468.5	15.0
50°-60°	439.6	14.1
60°-70°	367.2	11.8
70°-80°	262.6	8.4
80°-90°	156.2	5.0
90°-100°	98.2	3.2
100°-110°	72.2	2.3
110°-120°	48.2	1.5
120°-130°	27.5	0.9
130°-140°	12.3	0.4
140°-150°	2.6	0.1
150°-160°	0.0	0.0
160°-170°	0.0	0.0
170°-180°	0.0	0.0
0°-30°	713.8	22.9
0°-40°	1161.6	37.3
0°-60°	2069.7	66.4
0°-90°	2855.8	91.6
90°-120°	218.5	7.0
90°-150°	260.9	8.4
90°-180°	261.0	8.4
0°-180°	3116.7	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	927	927	927	927	927	
5°	928	926	920	928	927	88
15°	884	887	886	896	895	249
25°	798	808	811	824	824	368
35°	687	703	716	731	735	430
45°	562	586	611	630	638	433
55°	428	462	498	525	533	383
65°	296	335	380	410	420	293
75°	161	208	259	292	304	172
85°	50	100	154	188	198	51
90°	13	63	114	148	159	9
95°	11	50	100	131	141	9
105°	8	32	76	104	113	8
115°	5	17	54	78	86	5
125°	3	3	32	54	61	3
135°	2	1	12	30	35	2
145°	1	0	0	8	12	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°	927.4	927.4	927.4	927.4	927.4
2.5°	932.4	929.4	921.3	929.4	928.4
5°	928.4	926.4	920.3	928.4	927.4
7.5°	921.3	921.3	915.3	925.4	924.4
10°	911.2	913.2	908.2	918.3	916.3
12.5°	899.1	902.1	899.1	908.2	906.2
15°	883.9	887.0	886.0	896.1	895.1
17.5°	865.8	871.8	870.8	879.9	877.9
20°	845.6	851.6	853.6	862.7	863.7
22.5°	824.3	830.4	833.4	845.6	844.6
25°	798.1	808.2	811.2	824.3	824.3
27.5°	772.8	783.9	790.0	801.1	802.1
30°	745.5	758.7	766.8	778.9	778.9
32.5°	715.2	730.4	741.5	754.6	757.7
35°	687.0	703.1	716.3	731.4	735.4
37.5°	656.6	674.8	690.0	707.2	710.2
40°	626.3	644.5	664.7	681.9	685.9
42.5°	593.0	616.2	637.5	656.6	662.7
45°	561.7	585.9	611.2	630.4	638.5
47.5°	528.3	555.6	583.9	605.1	611.2
50°	496.0	524.3	555.6	578.9	585.9
52.5°	461.7	492.0	527.3	551.6	560.7
55°	428.3	461.7	498.0	525.3	533.4
57.5°	396.0	430.4	469.8	497.0	506.1
60°	361.7	398.0	439.4	467.7	478.8
62.5°	329.3	366.7	411.2	439.4	449.6
65°	296.0	335.4	379.8	410.2	420.3
67.5°	262.7	304.1	348.5	381.9	389.9
70°	227.3	270.7	319.2	351.6	361.7
72.5°	195.0	238.4	288.9	322.3	332.4
75°	160.6	208.1	258.6	292.0	304.1
77.5°	131.3	178.8	229.3	264.7	273.8
80°	100.0	149.5	202.0	236.4	246.5
82.5°	72.7	123.2	176.8	211.1	221.2
85°	49.5	100.0	153.6	187.9	198.0
87.5°	30.3	80.8	132.3	166.7	176.8
90°	13.1	62.6	114.2	148.5	158.6
92.5°	12.1	55.6	106.1	139.4	148.5
95°	11.1	50.5	100.0	131.3	141.4
97.5°	10.1	46.5	94.0	124.3	134.4
100°	9.1	41.4	87.9	117.2	127.3
102.5°	8.1	36.4	81.8	110.1	120.2
105°	8.1	32.3	75.8	104.1	113.1
107.5°	7.1	28.3	69.7	97.0	106.1
110°	6.1	24.2	64.7	90.9	99.0

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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	6.1	20.2	58.6	83.8	92.9
115°	5.1	17.2	53.5	77.8	85.9
117.5°	5.1	13.1	47.5	71.7	79.8
120°	4.0	9.1	42.4	65.7	72.7
122.5°	4.0	6.1	37.4	59.6	66.7
125°	3.0	3.0	32.3	53.5	60.6
127.5°	3.0	2.0	27.3	47.5	54.6
130°	3.0	2.0	22.2	41.4	47.5
132.5°	2.0	2.0	17.2	35.4	42.4
135°	2.0	1.0	12.1	30.3	35.4
137.5°	2.0	1.0	8.1	24.2	29.3
140°	1.0	1.0	4.0	19.2	24.2
142.5°	1.0	0.0	0.0	13.1	18.2
145°	1.0	0.0	0.0	8.1	12.1
147.5°	0.0	0.0	0.0	3.0	7.1
150°	0.0	0.0	0.0	0.0	2.0
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)