

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: P242493

Luminaire Tested: **S123DR-S775D927-X4F0-XX-UDD-D-W**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P242493
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-S775D927-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: 2444.0 lumens
Efficiency: N/A
Efficacy: 92.6 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

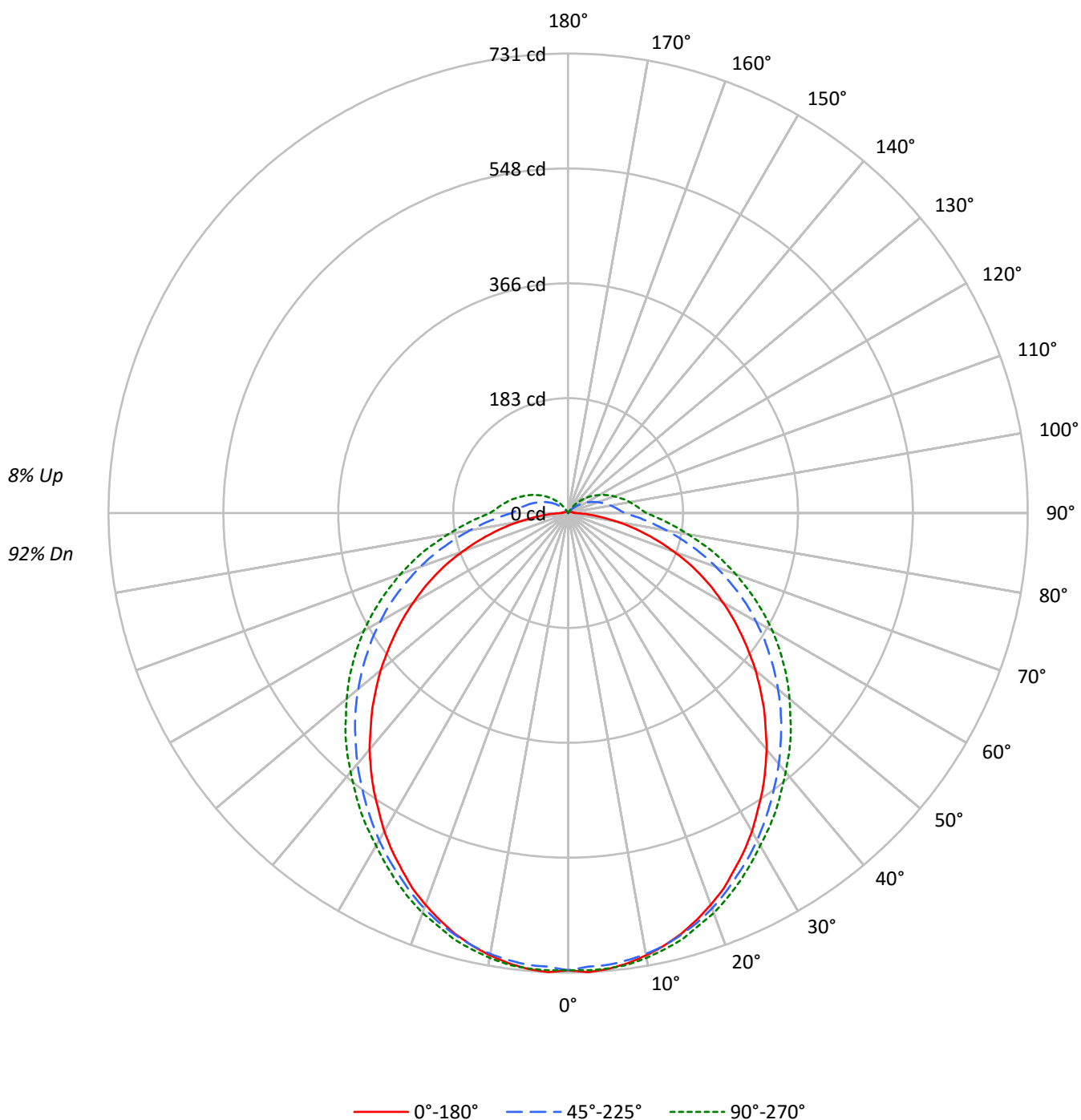
Input Watts (W): 26.4
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



TEST NUMBER: P242493

CATALOG NUMBER: S123DR-S775D927-X4F0-XX-UDD-D-W

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

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	8815	8815	8815
5°	8841	8577	8575
10°	8761	8364	8311
15°	8649	8125	8026
20°	8487	7856	7715
25°	8287	7549	7392
30°	8082	7273	7066
35°	7853	6981	6802
40°	7635	6714	6521
45°	7392	6458	6294
50°	7152	6203	6045
55°	6887	5942	5818
60°	6628	5676	5585
65°	6363	5394	5310
70°	5963	5074	5028
75°	5463	4710	4737
80°	4878	4346	4406
85°	4331	4071	4189

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	69.0	2.8
10°-20°	196.7	8.0
20°-30°	294.1	12.0
30°-40°	351.1	14.4
40°-50°	367.4	15.0
50°-60°	344.8	14.1
60°-70°	288.0	11.8
70°-80°	205.9	8.4
80°-90°	122.5	5.0
90°-100°	77.0	3.2
100°-110°	56.6	2.3
110°-120°	37.8	1.5
120°-130°	21.6	0.9
130°-140°	9.7	0.4
140°-150°	2.0	0.1
150°-160°	0.0	0.0
160°-170°	0.0	0.0
170°-180°	0.0	0.0
0°-30°	559.7	22.9
0°-40°	910.9	37.3
0°-60°	1623.0	66.4
0°-90°	2239.4	91.6
90°-120°	171.4	7.0
90°-150°	204.6	8.4
90°-180°	205.0	8.4
0°-180°	2444.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	727	727	727	727	727	
5°	728	726	722	728	727	69
15°	693	696	695	703	702	195
25°	626	634	636	646	646	288
35°	539	551	562	574	577	337
45°	440	460	479	494	501	340
55°	336	362	390	412	418	301
65°	232	263	298	322	330	229
75°	126	163	203	229	238	135
85°	39	78	120	147	155	40
90°	10	49	90	116	124	7
95°	9	40	78	103	111	7
105°	6	25	59	82	89	6
115°	4	14	42	61	67	4
125°	2	2	25	42	48	2
135°	2	1	10	24	28	1
145°	1	0	0	6	10	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

TEST NUMBER: P242493

CATALOG NUMBER: S123DR-S775D927-X4F0-XX-UDD-D-W

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	727.2	727.2	727.2	727.2	727.2
2.5°	731.2	728.8	722.5	728.8	728.0
5°	728.0	726.4	721.7	728.0	727.2
7.5°	722.5	722.5	717.7	725.6	724.8
10°	714.5	716.1	712.2	720.1	718.5
12.5°	705.0	707.4	705.0	712.2	710.6
15°	693.2	695.5	694.7	702.7	701.9
17.5°	678.9	683.7	682.9	690.0	688.4
20°	663.1	667.8	669.4	676.5	677.3
22.5°	646.4	651.2	653.6	663.1	662.3
25°	625.8	633.7	636.1	646.4	646.4
27.5°	606.0	614.7	619.5	628.2	629.0
30°	584.6	594.9	601.3	610.8	610.8
32.5°	560.9	572.7	581.5	591.8	594.1
35°	538.7	551.4	561.7	573.5	576.7
37.5°	514.9	529.2	541.1	554.5	556.9
40°	491.2	505.4	521.3	534.7	537.9
42.5°	465.0	483.2	499.9	514.9	519.7
45°	440.5	459.5	479.3	494.3	500.7
47.5°	414.3	435.7	457.9	474.5	479.3
50°	389.0	411.1	435.7	453.9	459.5
52.5°	362.0	385.8	413.5	432.5	439.7
55°	335.9	362.0	390.5	411.9	418.3
57.5°	310.5	337.5	368.4	389.8	396.9
60°	283.6	312.1	344.6	366.8	375.5
62.5°	258.3	287.6	322.4	344.6	352.5
65°	232.1	263.0	297.9	321.6	329.5
67.5°	206.0	238.4	273.3	299.4	305.8
70°	178.2	212.3	250.3	275.7	283.6
72.5°	152.9	187.0	226.6	252.7	260.6
75°	126.0	163.2	202.8	228.9	238.4
77.5°	103.0	140.2	179.8	207.6	214.7
80°	78.4	117.2	158.4	185.4	193.3
82.5°	57.0	96.6	138.6	165.6	173.5
85°	38.8	78.4	120.4	147.3	155.3
87.5°	23.8	63.4	103.8	130.7	138.6
90°	10.3	49.1	89.5	116.5	124.4
92.5°	9.5	43.6	83.2	109.3	116.5
95°	8.7	39.6	78.4	103.0	110.9
97.5°	7.9	36.4	73.7	97.4	105.4
100°	7.1	32.5	68.9	91.9	99.8
102.5°	6.3	28.5	64.2	86.3	94.3
105°	6.3	25.3	59.4	81.6	88.7
107.5°	5.5	22.2	54.7	76.0	83.2
110°	4.8	19.0	50.7	71.3	77.6

TEST NUMBER: P242493

CATALOG NUMBER: S123DR-S775D927-X4F0-XX-UDD-D-W

CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	4.8	15.8	45.9	65.8	72.9
115°	4.0	13.5	42.0	61.0	67.3
117.5°	4.0	10.3	37.2	56.2	62.6
120°	3.2	7.1	33.3	51.5	57.0
122.5°	3.2	4.8	29.3	46.7	52.3
125°	2.4	2.4	25.3	42.0	47.5
127.5°	2.4	1.6	21.4	37.2	42.8
130°	2.4	1.6	17.4	32.5	37.2
132.5°	1.6	1.6	13.5	27.7	33.3
135°	1.6	0.8	9.5	23.8	27.7
137.5°	1.6	0.8	6.3	19.0	23.0
140°	0.8	0.8	3.2	15.1	19.0
142.5°	0.8	0.0	0.0	10.3	14.3
145°	0.8	0.0	0.0	6.3	9.5
147.5°	0.0	0.0	0.0	2.4	5.5
150°	0.0	0.0	0.0	0.0	1.6
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)