

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: P242447

Luminaire Tested: **S123DR-S560D935-X4F0-XX-UDD-F-W**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P242447
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-S560D935-X4F0-XX-UDD-F-W
Description: DEFINE 3 DIRECT RECESSED WITH SATIN FLUSH DIFFUSER
STANDARD LIGHT ENGINE
Light Source: (92) 3500K CCT, 90 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 1871.2 lumens
Efficiency: N/A
Efficacy: 99.5 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

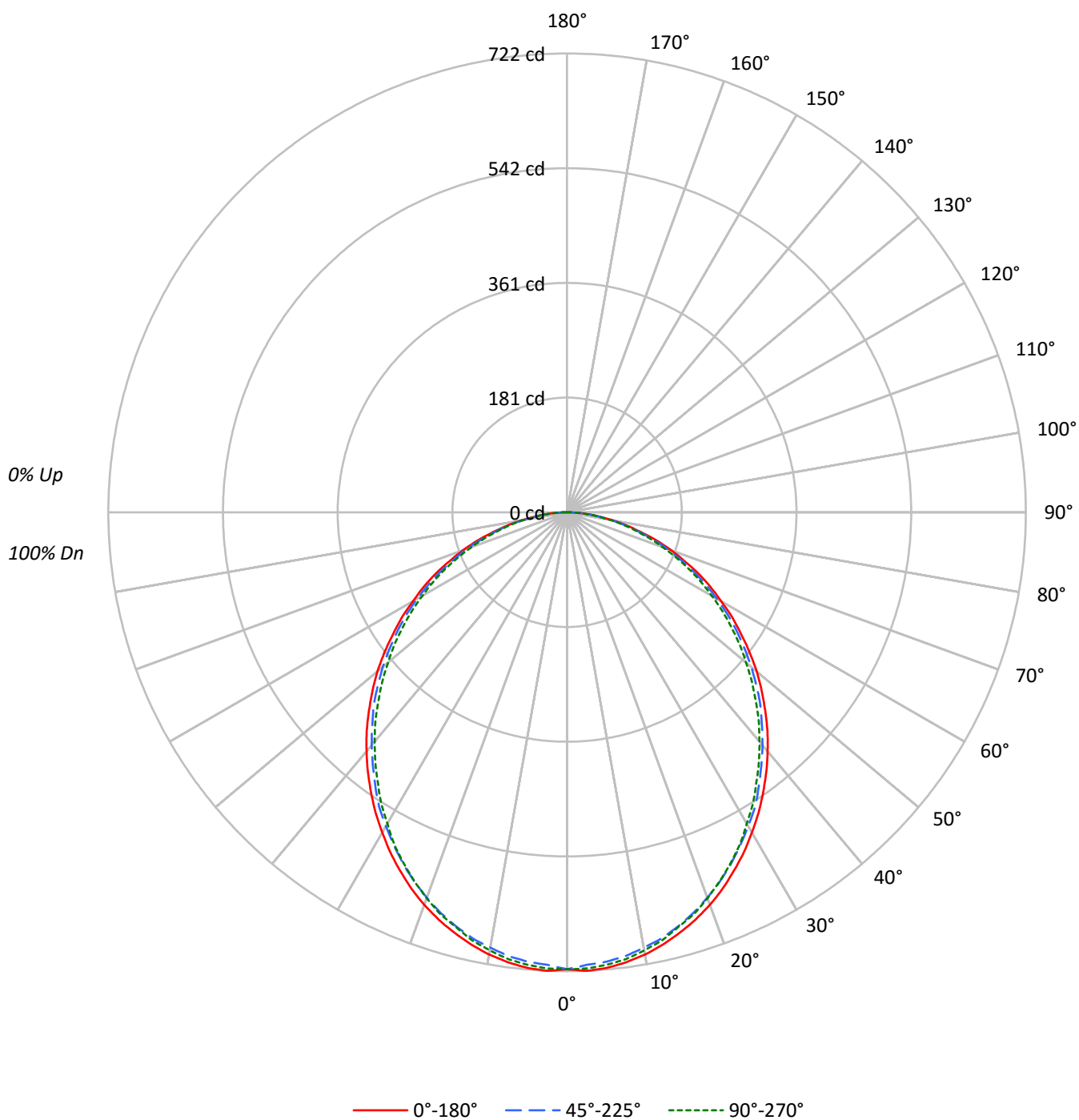
Input Watts (W): 18.8
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



TEST NUMBER: P242447

CATALOG NUMBER: S123DR-S560D935-X4F0-XX-UDD-F-W

Luminous Intensity Polar Plot



TEST NUMBER: P242447

CATALOG NUMBER: S123DR-S560D935-X4F0-XX-UDD-F-W

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°	8715	8715	8715
5°	8756	8635	8696
10°	8697	8560	8613
15°	8596	8464	8479
20°	8477	8325	8333
25°	8317	8161	8144
30°	8142	7978	7918
35°	7959	7785	7684
40°	7768	7571	7454
45°	7556	7376	7196
50°	7345	7136	6936
55°	7069	6885	6676
60°	6790	6594	6385
65°	6542	6275	6080
70°	6177	5915	5653
75°	5648	5442	5212
80°	5089	4879	4830
85°	4464	4297	4131

TEST NUMBER: P242447

CATALOG NUMBER: S123DR-S560D935-X4F0-XX-UDD-F-W

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	67.8	3.6
10°-20°	191.4	10.2
20°-30°	282.7	15.1
30°-40°	330.1	17.6
40°-50°	331.9	17.7
50°-60°	291.5	15.6
60°-70°	217.1	11.6
70°-80°	123.6	6.6
80°-90°	35.1	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°	541.8	29.0
0°-40°	872.0	46.6
0°-60°	1495.4	79.9
0°-90°	1871.2	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1871.2	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	719	719	719	719	719	
5°	720	716	710	716	715	68
15°	685	682	674	679	676	193
25°	622	618	610	611	609	286
35°	538	534	526	522	519	337
45°	441	438	430	423	420	340
55°	334	334	326	319	316	300
65°	228	225	219	214	212	225
75°	121	118	116	113	111	129
85°	32	31	31	30	30	37
90°	0	0	0	0	0	

TEST NUMBER: P242447

CATALOG NUMBER: S123DR-S560D935-X4F0-XX-UDD-F-W

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	719.0	719.0	719.0	719.0	719.0
2.5°	722.1	719.6	712.8	719.0	718.4
5°	719.6	716.5	709.7	715.9	714.7
7.5°	714.0	711.0	704.2	709.7	709.1
10°	706.6	703.5	695.5	701.1	699.8
12.5°	696.7	694.3	686.8	690.6	689.9
15°	685.0	682.5	674.5	679.4	675.7
17.5°	672.0	668.9	660.9	664.6	663.3
20°	657.2	653.5	645.4	647.9	646.0
22.5°	640.5	636.8	628.7	630.6	628.1
25°	621.9	618.2	610.2	610.8	608.9
27.5°	602.8	599.1	590.4	591.0	589.2
30°	581.7	578.7	570.0	570.0	565.7
32.5°	560.7	556.4	550.2	545.9	544.0
35°	537.9	534.1	526.1	522.4	519.3
37.5°	515.0	510.0	502.0	497.7	495.8
40°	490.9	487.2	478.5	473.6	471.1
42.5°	466.8	462.4	453.8	448.8	446.4
45°	440.8	438.3	430.3	422.9	419.8
47.5°	415.4	411.7	404.3	396.9	394.4
50°	389.5	386.4	378.4	371.6	367.8
52.5°	362.3	360.4	351.8	346.2	342.5
55°	334.5	333.8	325.8	319.0	315.9
57.5°	308.5	306.0	299.8	293.7	289.9
60°	280.1	279.4	272.0	266.5	263.4
62.5°	254.7	252.9	245.4	239.9	238.0
65°	228.1	225.0	218.8	213.9	212.0
67.5°	199.7	197.2	192.3	187.9	185.5
70°	174.3	170.6	166.9	162.6	159.5
72.5°	147.8	145.3	141.0	137.2	136.0
75°	120.6	118.1	116.2	113.1	111.3
77.5°	96.4	95.2	92.7	90.3	90.3
80°	72.9	71.1	69.9	69.2	69.2
82.5°	50.1	50.1	50.1	48.8	48.2
85°	32.1	30.9	30.9	29.7	29.7
87.5°	16.1	14.2	13.6	13.0	13.0
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)