

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: P242452

Luminaire Tested: **S123DR-S560D940-X4F0-XX-UDD-F-W**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P242452
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-S560D940-X4F0-XX-UDD-F-W
Description: DEFINE 3 DIRECT RECESSED WITH SATIN FLUSH DIFFUSER
STANDARD LIGHT ENGINE
Light Source: (92) 4000K CCT, 90 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 1937.9 lumens
Efficiency: N/A
Efficacy: 103.1 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

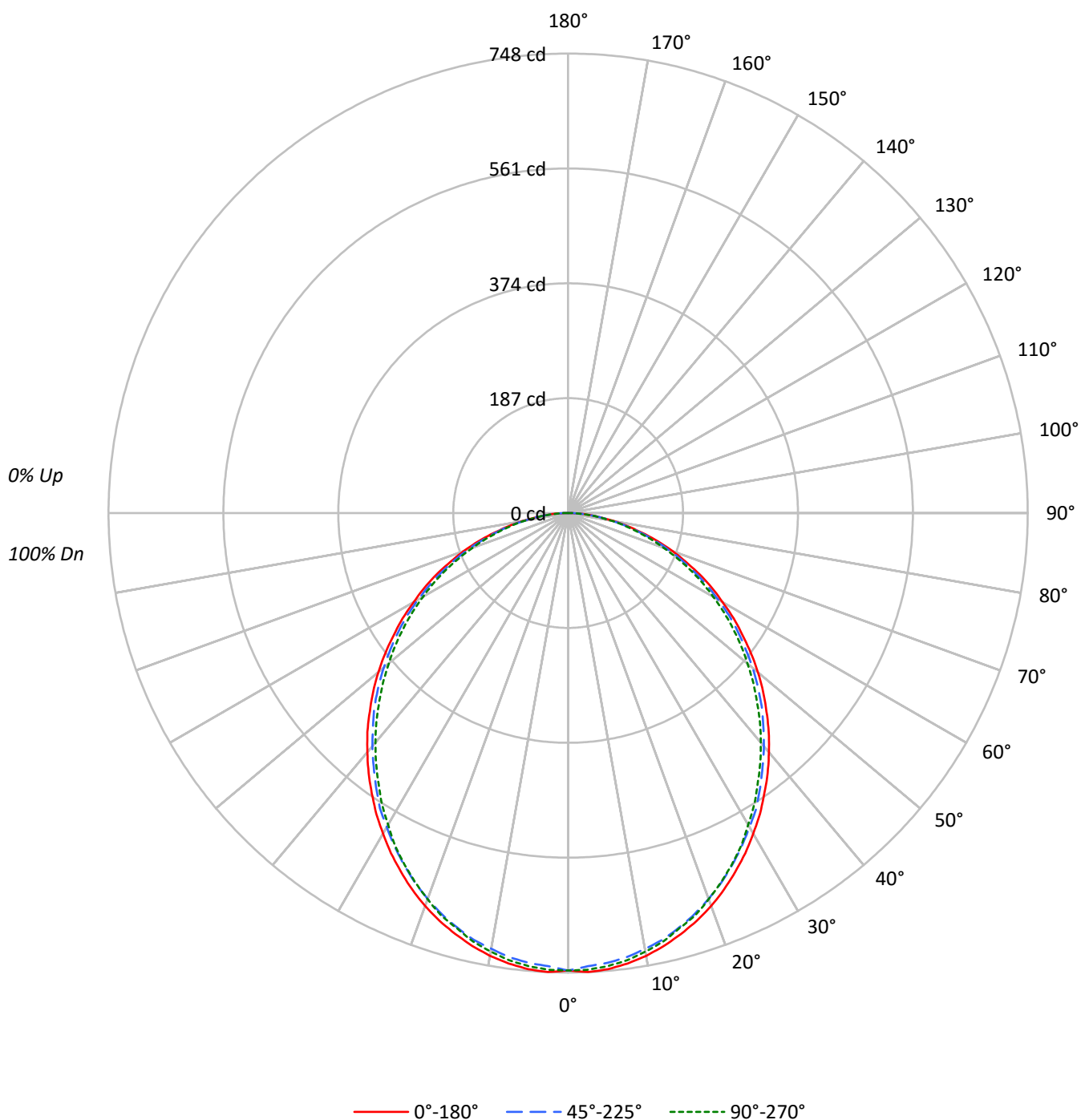
Input Watts (W): 18.8
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



TEST NUMBER: P242452

CATALOG NUMBER: S123DR-S560D940-X4F0-XX-UDD-F-W

Luminous Intensity Polar Plot



TEST NUMBER: P242452

CATALOG NUMBER: S123DR-S560D940-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°	9025	9025	9025
5°	9068	8943	9006
10°	9007	8866	8921
15°	8902	8765	8782
20°	8779	8622	8631
25°	8614	8451	8435
30°	8433	8262	8199
35°	8242	8063	7958
40°	8044	7842	7720
45°	7825	7638	7452
50°	7607	7388	7185
55°	7320	7130	6915
60°	7030	6829	6613
65°	6777	6502	6298
70°	6400	6128	5855
75°	5849	5639	5395
80°	5277	5054	5005
85°	4631	4450	4270

TEST NUMBER: P242452

CATALOG NUMBER: S123DR-S560D940-X4F0-XX-UDD-F-W

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	70.2	3.6
10°-20°	198.2	10.2
20°-30°	292.7	15.1
30°-40°	341.9	17.6
40°-50°	343.7	17.7
50°-60°	301.9	15.6
60°-70°	224.9	11.6
70°-80°	128.0	6.6
80°-90°	36.4	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°	561.2	29.0
0°-40°	903.1	46.6
0°-60°	1548.7	79.9
0°-90°	1937.9	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1937.9	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	745	745	745	745	745	
5°	745	742	735	741	740	71
15°	709	707	698	704	700	200
25°	644	640	632	633	631	297
35°	557	553	545	541	538	349
45°	456	454	446	438	435	352
55°	346	346	337	330	327	310
65°	236	233	227	222	220	233
75°	125	122	120	117	115	133
85°	33	32	32	31	31	38
90°	0	0	0	0	0	

TEST NUMBER: P242452

CATALOG NUMBER: S123DR-S560D940-X4F0-XX-UDD-F-W

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	744.6	744.6	744.6	744.6	744.6
2.5°	747.8	745.3	738.2	744.6	744.0
5°	745.3	742.1	735.0	741.4	740.2
7.5°	739.5	736.3	729.3	735.0	734.4
10°	731.8	728.6	720.3	726.1	724.8
12.5°	721.6	719.0	711.3	715.2	714.5
15°	709.4	706.9	698.5	703.7	699.8
17.5°	696.0	692.8	684.4	688.3	687.0
20°	680.6	676.8	668.4	671.0	669.1
22.5°	663.3	659.5	651.2	653.1	650.5
25°	644.1	640.3	631.9	632.6	630.7
27.5°	624.3	620.4	611.5	612.1	610.2
30°	602.5	599.3	590.3	590.3	585.8
32.5°	580.7	576.2	569.8	565.4	563.4
35°	557.0	553.2	544.9	541.0	537.8
37.5°	533.3	528.2	519.9	515.4	513.5
40°	508.4	504.5	495.6	490.4	487.9
42.5°	483.4	478.9	470.0	464.8	462.3
45°	456.5	454.0	445.6	437.9	434.7
47.5°	430.3	426.4	418.7	411.1	408.5
50°	403.4	400.2	391.8	384.8	381.0
52.5°	375.2	373.3	364.3	358.6	354.7
55°	346.4	345.7	337.4	330.4	327.2
57.5°	319.5	316.9	310.5	304.1	300.3
60°	290.0	289.4	281.7	276.0	272.8
62.5°	263.8	261.9	254.2	248.4	246.5
65°	236.3	233.1	226.7	221.5	219.6
67.5°	206.8	204.2	199.1	194.6	192.1
70°	180.6	176.7	172.9	168.4	165.2
72.5°	153.0	150.5	146.0	142.1	140.9
75°	124.9	122.3	120.4	117.2	115.2
77.5°	99.9	98.6	96.0	93.5	93.5
80°	75.6	73.6	72.4	71.7	71.7
82.5°	51.9	51.9	51.9	50.6	49.9
85°	33.3	32.0	32.0	30.7	30.7
87.5°	16.6	14.7	14.1	13.4	13.4
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)