

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: P242442

Luminaire Tested: **S123DR-S560D930-X4F0-XX-UDD-F-W**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P242442
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-S560D930-X4F0-XX-UDD-F-W
Description: DEFINE 3 DIRECT RECESSED WITH SATIN FLUSH DIFFUSER
STANDARD LIGHT ENGINE
Light Source: (92) 3000K CCT, 90 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 1771.9 lumens
Efficiency: N/A
Efficacy: 94.3 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

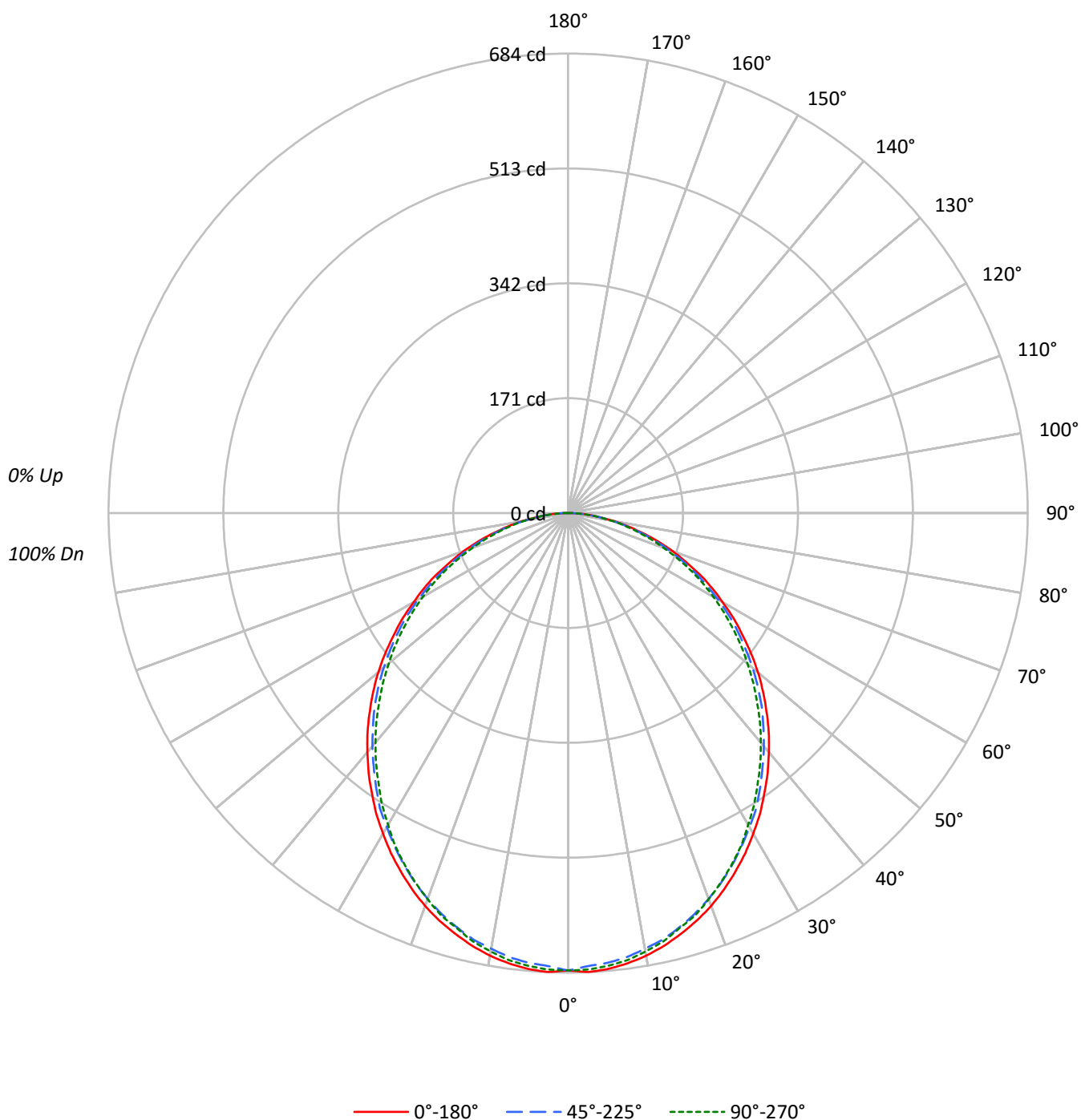
Input Watts (W): 18.8
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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
RCR																	
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102
1	109	104	100	96	106	102	98	95	98	94	92	94	91	89	90	88	86
2	99	91	84	79	97	89	83	78	86	80	76	82	78	74	79	76	72
3	91	80	72	66	88	79	71	65	76	69	64	73	67	63	70	66	62
4	83	71	62	56	81	70	62	55	67	60	55	65	59	54	63	58	53
5	76	64	55	48	74	63	54	48	60	53	47	58	52	47	57	51	46
6	71	57	49	42	69	56	48	42	55	47	42	53	46	41	51	46	41
7	66	52	43	37	64	51	43	37	50	42	37	48	42	37	47	41	36
8	61	48	39	33	60	47	39	33	46	38	33	44	38	33	43	37	33
9	57	44	36	30	56	43	35	30	42	35	30	41	34	30	40	34	30
10	54	40	33	27	52	40	32	27	39	32	27	38	32	27	37	31	27

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	8252	8252	8252
5°	8291	8177	8234
10°	8235	8106	8157
15°	8139	8015	8029
20°	8027	7884	7890
25°	7876	7728	7712
30°	7711	7554	7496
35°	7536	7372	7276
40°	7355	7169	7059
45°	7155	6984	6814
50°	6955	6757	6568
55°	6693	6519	6321
60°	6429	6245	6046
65°	6195	5943	5759
70°	5851	5603	5351
75°	5348	5156	4936
80°	4823	4621	4579
85°	4228	4075	3908

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	64.2	3.6
10°-20°	181.2	10.2
20°-30°	267.7	15.1
30°-40°	312.6	17.6
40°-50°	314.3	17.7
50°-60°	276.1	15.6
60°-70°	205.6	11.6
70°-80°	117.0	6.6
80°-90°	33.3	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°	513.1	29.0
0°-40°	825.7	46.6
0°-60°	1416.0	79.9
0°-90°	1771.9	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1771.9	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	681	681	681	681	681	
5°	681	678	672	678	677	65
15°	649	646	639	643	640	183
25°	589	585	578	578	577	271
35°	509	506	498	495	492	319
45°	417	415	407	400	398	322
55°	317	316	308	302	299	284
65°	216	213	207	203	201	213
75°	114	112	110	107	105	122
85°	30	29	29	28	28	35
90°	0	0	0	0	0	

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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	680.8	680.8	680.8	680.8	680.8
2.5°	683.8	681.4	675.0	680.8	680.2
5°	681.4	678.5	672.0	677.9	676.7
7.5°	676.1	673.2	666.8	672.0	671.5
10°	669.1	666.2	658.6	663.8	662.7
12.5°	659.8	657.4	650.4	653.9	653.3
15°	648.6	646.3	638.7	643.4	639.8
17.5°	636.3	633.4	625.8	629.3	628.1
20°	622.3	618.8	611.2	613.5	611.7
22.5°	606.5	603.0	595.4	597.1	594.8
25°	588.9	585.4	577.8	578.4	576.6
27.5°	570.8	567.3	559.1	559.6	557.9
30°	550.9	547.9	539.7	539.7	535.6
32.5°	531.0	526.9	521.0	516.9	515.2
35°	509.3	505.8	498.2	494.7	491.7
37.5°	487.6	483.0	475.3	471.3	469.5
40°	464.8	461.3	453.1	448.4	446.1
42.5°	442.0	437.9	429.7	425.0	422.7
45°	417.4	415.1	407.4	400.4	397.5
47.5°	393.4	389.9	382.9	375.8	373.5
50°	368.8	365.9	358.3	351.8	348.3
52.5°	343.0	341.3	333.1	327.8	324.3
55°	316.7	316.1	308.5	302.1	299.1
57.5°	292.1	289.8	283.9	278.1	274.6
60°	265.2	264.6	257.6	252.3	249.4
62.5°	241.2	239.4	232.4	227.1	225.4
65°	216.0	213.1	207.2	202.6	200.8
67.5°	189.1	186.7	182.1	178.0	175.6
70°	165.1	161.6	158.1	154.0	151.0
72.5°	139.9	137.6	133.5	130.0	128.8
75°	114.2	111.8	110.1	107.1	105.4
77.5°	91.3	90.2	87.8	85.5	85.5
80°	69.1	67.3	66.2	65.6	65.6
82.5°	47.4	47.4	47.4	46.2	45.7
85°	30.4	29.3	29.3	28.1	28.1
87.5°	15.2	13.5	12.9	12.3	12.3
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)