

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: P242428

Luminaire Tested: **S123DR-S560D830-X4F0-XX-UDD-F-W**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P242428
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-S560D830-X4F0-XX-UDD-F-W
Description: DEFINE 3 DIRECT RECESSED WITH SATIN FLUSH DIFFUSER
STANDARD LIGHT ENGINE
Light Source: (92) 3000K CCT, 80 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 2048.4 lumens
Efficiency: N/A
Efficacy: 109.0 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

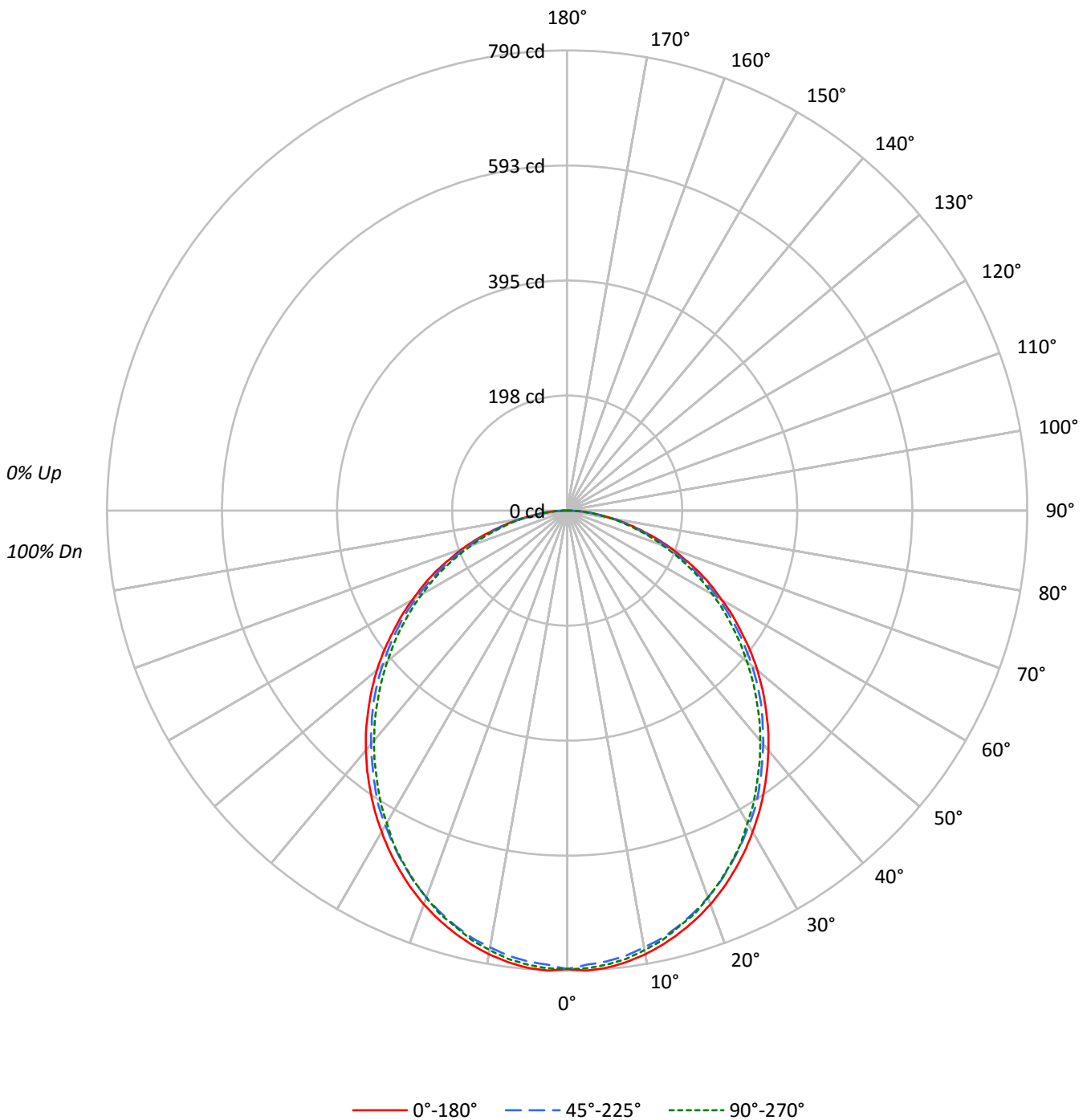
Input Watts (W): 18.8
Input Voltage (V): 120
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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					0
RW	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10	50	30	10	50	30	10	0		
RCR																										
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100					100			
1	109	104	100	96	106	102	98	95	98	94	92	94	91	89	90	88	86	84					84			
2	99	91	84	79	97	89	83	78	86	80	76	82	78	74	79	76	72	70					70			
3	91	80	72	66	88	79	71	65	76	69	64	73	67	63	70	66	62	59					59			
4	83	71	62	56	81	70	62	55	67	60	55	65	59	54	63	58	53	51					51			
5	76	64	55	48	74	63	54	48	60	53	47	58	52	47	57	51	46	44					44			
6	71	57	49	42	69	56	48	42	55	47	42	53	46	41	51	46	41	39					39			
7	66	52	43	37	64	51	43	37	50	42	37	48	42	37	47	41	36	34					34			
8	61	48	39	33	60	47	39	33	46	38	33	44	38	33	43	37	33	31					31			
9	57	44	36	30	56	43	35	30	42	35	30	41	34	30	40	34	30	28					28			
10	54	40	33	27	52	40	32	27	39	32	27	38	32	27	37	31	27	25					25			

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	9541	9541	9541
5°	9586	9453	9519
10°	9520	9371	9429
15°	9410	9266	9282
20°	9280	9113	9122
25°	9105	8934	8915
30°	8913	8734	8667
35°	8713	8522	8412
40°	8503	8288	8160
45°	8271	8074	7877
50°	8041	7811	7594
55°	7737	7538	7308
60°	7433	7219	6989
65°	7162	6872	6657
70°	6762	6475	6188
75°	6182	5957	5704
80°	5577	5340	5291
85°	4895	4701	4520



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	74.2	3.6
10°-20°	209.5	10.2
20°-30°	309.4	15.1
30°-40°	361.4	17.6
40°-50°	363.3	17.7
50°-60°	319.2	15.6
60°-70°	237.7	11.6
70°-80°	135.3	6.6
80°-90°	38.5	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°	593.2	29.0
0°-40°	954.6	46.6
0°-60°	1637.0	79.9
0°-90°	2048.4	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2048.4	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	787	787	787	787	787	
5°	788	784	777	784	782	75
15°	750	747	738	744	740	211
25°	681	677	668	669	667	314
35°	589	585	576	572	568	368
45°	482	480	471	463	460	373
55°	366	366	357	349	346	328
65°	250	246	240	234	232	246
75°	132	129	127	124	122	141
85°	35	34	34	32	32	40
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	787.1	787.1	787.1	787.1	787.1
2.5°	790.5	787.8	780.3	787.1	786.4
5°	787.8	784.4	776.9	783.7	782.3
7.5°	781.7	778.3	770.8	776.9	776.3
10°	773.5	770.2	761.4	767.5	766.1
12.5°	762.7	760.0	751.9	756.0	755.3
15°	749.9	747.2	738.4	743.8	739.7
17.5°	735.6	732.3	723.5	727.5	726.2
20°	719.4	715.3	706.5	709.3	707.2
22.5°	701.1	697.1	688.3	690.3	687.6
25°	680.8	676.8	668.0	668.6	666.6
27.5°	659.9	655.8	646.3	647.0	645.0
30°	636.8	633.5	624.0	624.0	619.2
32.5°	613.8	609.1	602.3	597.6	595.6
35°	588.8	584.7	575.9	571.9	568.5
37.5°	563.7	558.3	549.5	544.8	542.8
40°	537.4	533.3	523.8	518.4	515.7
42.5°	511.0	506.2	496.7	491.3	488.6
45°	482.5	479.8	471.0	462.9	459.5
47.5°	454.8	450.7	442.6	434.5	431.8
50°	426.4	423.0	414.2	406.7	402.7
52.5°	396.6	394.6	385.1	379.0	374.9
55°	366.1	365.5	356.7	349.2	345.8
57.5°	337.7	335.0	328.2	321.5	317.4
60°	306.6	305.9	297.8	291.7	288.3
62.5°	278.8	276.8	268.7	262.6	260.6
65°	249.7	246.3	239.6	234.2	232.1
67.5°	218.6	215.9	210.5	205.7	203.0
70°	190.8	186.8	182.7	178.0	174.6
72.5°	161.7	159.0	154.3	150.2	148.9
75°	132.0	129.3	127.2	123.8	121.8
77.5°	105.6	104.2	101.5	98.8	98.8
80°	79.9	77.8	76.5	75.8	75.8
82.5°	54.8	54.8	54.8	53.5	52.8
85°	35.2	33.8	33.8	32.5	32.5
87.5°	17.6	15.6	14.9	14.2	14.2
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)