

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: P243296

Luminaire Tested: **S123DR-H340D840-X4F0-XX-UDD-F-W**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P243296
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1802-639-49)
Test Lab: INNOVATION CENTER
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: NEO-RAY
Catalog Number: S123DR-H340D840-X4F0-XX-UDD-F-W
Description: DEFINE 3 DIRECT RECESSED WITH SATIN FLUSH DIFFUSER.
HIGH PERFORMANCE LIGHT ENGINE
Light Source: (184) 4000K CCT, 80 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 1356.6 lumens
Efficiency: N/A
Efficacy: 121.1 lumens/watt
Spacing Criteria (0/90/45): 1.21 / 1.18 / 1.31
Luminous Opening: Rectangular (W 0.23' x L: 3.88' x H: 0')
CIE Type: Direct

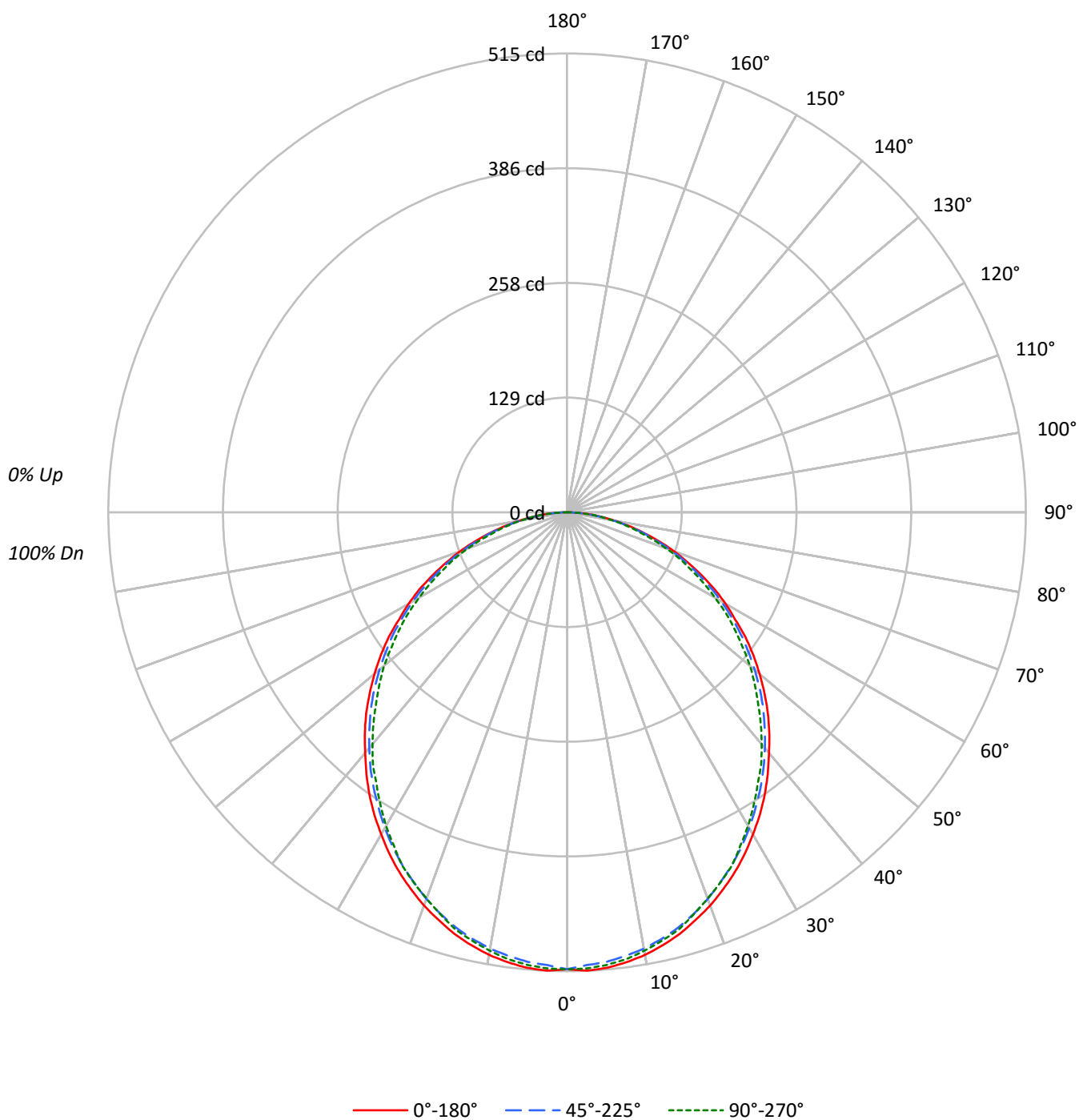
Input Watts (W): 11.2
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	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	94	97	94	91	94	91	89	90	88	86	84		
2	99	91	84	78	96	89	83	77	85	80	76	82	78	74	79	75	72	70		
3	90	80	72	65	88	78	71	65	75	69	64	73	67	62	70	65	61	59		
4	83	71	62	55	80	70	61	55	67	60	54	65	59	54	63	57	53	51		
5	76	63	54	48	74	62	54	48	60	53	47	58	52	47	56	51	46	44		
6	70	57	48	42	69	56	48	42	54	47	41	53	46	41	51	45	41	39		
7	65	52	43	37	64	51	43	37	50	42	37	48	41	36	47	41	36	34		
8	61	47	39	33	59	47	39	33	45	38	33	44	37	33	43	37	32	30		
9	57	44	35	30	56	43	35	30	42	35	30	41	34	29	40	34	29	27		
10	53	40	32	27	52	40	32	27	39	32	27	38	31	27	37	31	27	25		

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	6216	6216	6216
5°	6244	6163	6204
10°	6208	6120	6150
15°	6144	6054	6080
20°	6059	5956	5949
25°	5960	5846	5853
30°	5841	5727	5687
35°	5724	5599	5518
40°	5579	5465	5378
45°	5465	5335	5196
50°	5318	5182	5054
55°	5165	5030	4861
60°	4982	4848	4652
65°	4764	4621	4426
70°	4526	4373	4196
75°	4196	4079	3859
80°	3776	3686	3574
85°	3533	3352	3240

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	48.4	3.6
10°-20°	136.8	10.1
20°-30°	202.6	14.9
30°-40°	237.6	17.5
40°-50°	240.2	17.7
50°-60°	212.4	15.7
60°-70°	159.5	11.8
70°-80°	91.9	6.8
80°-90°	27.3	2.0
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°	387.8	28.6
0°-40°	625.3	46.1
0°-60°	1077.9	79.5
0°-90°	1356.6	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1356.6	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	513	513	513	513	513	
5°	513	511	506	511	510	49
15°	490	487	482	486	484	138
25°	446	442	437	439	438	205
35°	387	383	378	377	373	242
45°	319	316	311	307	303	246
55°	244	243	238	233	230	218
65°	166	165	161	157	154	165
75°	90	89	87	85	82	95
85°	25	25	24	24	23	28
90°	0	0	0	0	0	

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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	512.8	512.8	512.8	512.8	512.8
2.5°	514.9	513.2	508.6	513.2	512.4
5°	513.2	511.1	506.5	510.7	509.9
7.5°	509.4	507.3	502.2	506.9	506.0
10°	504.4	502.2	497.2	501.0	499.7
12.5°	497.6	495.5	490.4	493.4	492.5
15°	489.6	487.0	482.4	485.8	484.5
17.5°	479.8	477.7	472.6	476.9	473.1
20°	469.7	467.6	461.7	465.5	461.2
22.5°	457.9	455.3	449.4	451.9	449.8
25°	445.6	442.2	437.1	439.2	437.6
27.5°	432.1	428.7	423.6	424.5	421.5
30°	417.3	414.3	409.2	410.1	406.3
32.5°	402.5	399.9	393.6	393.6	389.8
35°	386.8	383.4	378.4	377.1	372.9
37.5°	369.9	367.0	362.3	360.2	357.7
40°	352.6	350.9	345.4	342.9	339.9
42.5°	336.1	333.1	328.5	325.1	321.7
45°	318.8	316.2	311.2	306.9	303.1
47.5°	300.6	298.5	293.4	288.7	285.8
50°	282.0	280.3	274.8	269.7	268.0
52.5°	263.8	261.7	256.2	251.5	248.2
55°	244.4	242.7	238.0	233.4	230.0
57.5°	223.6	223.6	218.6	214.3	211.8
60°	205.5	203.3	200.0	195.3	191.9
62.5°	186.4	185.2	180.5	175.9	173.3
65°	166.1	164.9	161.1	156.8	154.3
67.5°	146.3	145.9	142.5	139.1	137.4
70°	127.7	126.8	123.4	120.1	118.4
72.5°	108.6	107.8	104.8	101.9	99.8
75°	89.6	88.8	87.1	84.6	82.4
77.5°	71.0	71.0	68.9	68.1	67.2
80°	54.1	53.7	52.8	52.0	51.2
82.5°	38.9	38.5	37.6	37.2	37.2
85°	25.4	24.9	24.1	23.7	23.3
87.5°	13.1	12.3	11.8	11.0	10.6
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)