

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: P243194

Luminaire Tested: **S122DR-H485D840-X4F0-XX-UDD-D-W**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P243194
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1802-639-53)
Test Lab: INNOVATION CENTER
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: NEO-RAY
Catalog Number: S122DR-H485D840-X4F0-XX-UDD-D-W
Description: DEFINE 2 DIRECT RECESSED WITH SATIN DROP 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: 1855.0 lumens
Efficiency: N/A
Efficacy: 107.8 lumens/watt
Spacing Criteria (0/90/45): 1.21 / 1.31 / 1.42
Luminous Opening: Rectangular w/ Sides (W: 0.15' x L: 3.88' x H: 0.08')
CIE Type: Semi-Direct

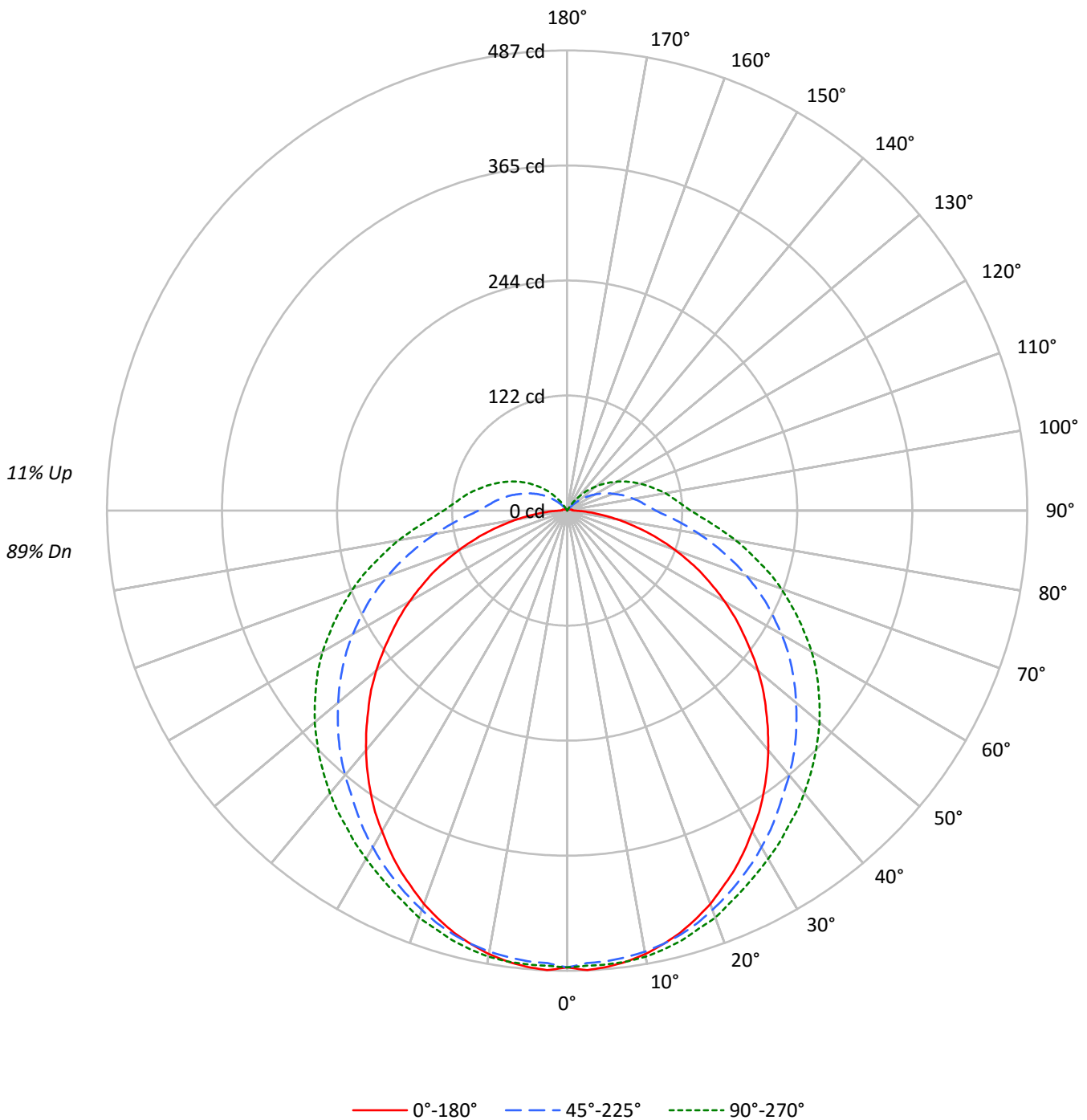
Input Watts (W): 17.2
Input Voltage (V): 120
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	0
RCR																		
0	116	116	116	116	112	112	112	112	105	105	105	98	98	98	92	92	92	89
1	104	98	93	88	100	95	90	86	88	84	81	82	79	76	77	74	72	69
2	93	84	77	70	90	81	74	68	76	70	65	71	66	62	66	62	59	56
3	85	73	64	57	81	71	63	56	66	59	54	62	56	51	58	53	49	46
4	77	64	55	48	74	62	54	47	58	51	45	55	48	43	51	46	41	39
5	71	57	48	41	68	55	47	40	52	44	39	49	42	37	46	40	36	33
6	65	51	42	35	63	50	41	35	47	39	34	44	37	32	41	36	31	29
7	60	46	37	31	58	45	37	30	42	35	29	40	33	28	38	32	28	25
8	56	42	33	27	54	41	33	27	39	31	26	37	30	25	35	29	25	22
9	52	39	30	25	50	38	30	24	36	28	24	34	27	23	32	26	22	20
10	49	36	28	22	47	35	27	22	33	26	21	31	25	21	30	24	20	18

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	9208	9208	9208
5°	9250	8829	8779
10°	9185	8537	8424
15°	9068	8235	8048
20°	8910	7909	7694
25°	8727	7588	7330
30°	8512	7285	7037
35°	8313	6984	6776
40°	8089	6725	6563
45°	7848	6491	6348
50°	7625	6252	6147
55°	7333	6028	5934
60°	7074	5780	5723
65°	6786	5527	5468
70°	6373	5228	5223
75°	5920	4907	4936
80°	5270	4592	4684
85°	4614	4343	4434



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	45.8	2.5
10°-20°	131.6	7.1
20°-30°	199.3	10.7
30°-40°	243.1	13.1
40°-50°	261.6	14.1
50°-60°	254.4	13.7
60°-70°	222.4	12.0
70°-80°	171.2	9.2
80°-90°	115.0	6.2
90°-100°	79.6	4.3
100°-110°	58.6	3.2
110°-120°	39.0	2.1
120°-130°	22.0	1.2
130°-140°	9.5	0.5
140°-150°	1.7	0.1
150°-160°	0.0	0.0
160°-170°	0.0	0.0
170°-180°	0.0	0.0
0°-30°	376.8	20.3
0°-40°	619.9	33.4
0°-60°	1135.9	61.2
0°-90°	1644.5	88.7
90°-120°	177.2	9.6
90°-150°	210.4	11.3
90°-180°	210.0	11.3
0°-180°	1855.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	483	483	483	483	483	
5°	485	483	479	483	482	46
15°	462	464	464	471	471	130
25°	419	426	432	441	442	193
35°	363	375	388	403	408	227
45°	298	316	342	363	370	230
55°	228	254	290	316	324	204
65°	158	191	233	261	270	155
75°	87	127	171	201	210	92
85°	26	69	115	144	153	27
90°	7	48	94	122	131	5
95°	5	39	82	108	116	4
105°	4	24	62	86	94	4
115°	3	11	43	65	72	3
125°	2	1	26	44	50	2
135°	1	1	9	24	30	1
145°	1	0	0	5	8	0
155°	0	0	0	0	0	0
165°	0	0	0	0	0	0
175°	0	0	0	0	0	0
180°	0	0	0	0	0	0



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	483.4	483.4	483.4	483.4	483.4
2.5°	486.8	484.7	479.4	483.4	482.1
5°	484.7	482.7	478.7	482.7	482.1
7.5°	481.4	480.0	476.7	482.1	481.4
10°	476.7	476.0	474.0	479.4	479.4
12.5°	469.9	470.6	469.9	476.0	475.3
15°	462.5	464.5	464.5	470.6	470.6
17.5°	453.1	456.5	457.8	464.5	463.9
20°	443.0	447.0	449.7	457.1	458.5
22.5°	430.9	436.9	441.0	449.1	449.7
25°	419.4	426.2	431.6	441.0	441.7
27.5°	406.0	414.1	422.1	431.6	433.6
30°	391.8	401.9	411.4	422.8	425.5
32.5°	378.4	388.5	400.6	412.7	417.4
35°	362.9	375.0	388.5	403.3	408.0
37.5°	347.4	360.2	376.4	393.9	399.9
40°	331.2	346.1	365.6	384.4	390.5
42.5°	314.4	330.6	354.1	373.7	380.4
45°	297.6	315.8	342.0	362.9	370.3
47.5°	281.4	300.9	329.2	352.8	359.5
50°	263.9	285.5	316.4	340.7	348.7
52.5°	245.7	270.0	303.6	328.6	336.6
55°	227.6	254.5	290.2	316.4	324.5
57.5°	210.7	239.0	276.7	303.0	312.4
60°	192.6	222.8	261.9	289.5	298.9
62.5°	174.4	207.4	247.1	275.4	284.1
65°	157.5	191.2	232.9	261.2	270.0
67.5°	138.7	174.4	217.5	247.1	255.2
70°	121.2	158.9	202.0	231.6	241.0
72.5°	103.7	142.1	186.5	216.1	226.2
75°	86.9	126.6	171.0	201.3	210.1
77.5°	69.3	111.1	156.2	186.5	195.2
80°	53.9	95.6	141.4	171.7	181.1
82.5°	38.4	81.5	127.9	157.5	166.3
85°	26.3	69.3	115.1	144.1	152.8
87.5°	15.5	57.9	103.0	132.0	140.7
90°	7.4	48.5	93.6	121.9	130.6
92.5°	6.1	43.8	86.9	114.5	123.2
95°	5.4	39.0	81.5	108.4	116.5
97.5°	5.4	35.7	76.8	103.0	111.1
100°	4.7	31.6	71.4	96.9	105.7
102.5°	4.7	27.6	66.7	91.6	99.6
105°	4.0	24.2	61.9	86.2	93.6
107.5°	3.4	20.9	56.6	80.8	88.2
110°	3.4	17.5	51.8	75.4	82.8



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	2.7	14.8	47.8	70.0	77.4
115°	2.7	11.4	43.1	64.6	72.0
117.5°	2.7	8.1	38.4	59.2	66.7
120°	2.0	5.4	34.3	54.5	61.3
122.5°	2.0	3.4	29.6	49.1	55.9
125°	2.0	1.3	25.6	43.8	50.5
127.5°	1.3	1.3	20.9	39.0	45.1
130°	1.3	0.7	16.8	33.7	39.7
132.5°	1.3	0.7	12.8	29.0	34.3
135°	0.7	0.7	8.8	23.6	29.6
137.5°	0.7	0.7	4.7	18.9	23.6
140°	0.7	0.0	2.0	14.1	18.2
142.5°	0.7	0.0	0.0	9.4	13.5
145°	0.7	0.0	0.0	5.4	8.1
147.5°	0.0	0.0	0.0	1.3	4.0
150°	0.0	0.0	0.0	0.0	0.7
152.5°	0.0	0.0	0.0	0.0	0.0
155°	0.0	0.0	0.0	0.0	0.0
157.5°	0.0	0.0	0.0	0.0	0.0
160°	0.0	0.0	0.0	0.0	0.0
162.5°	0.0	0.0	0.0	0.0	0.0
165°	0.0	0.0	0.0	0.0	0.0
167.5°	0.0	0.0	0.0	0.0	0.0
170°	0.0	0.0	0.0	0.0	0.0
172.5°	0.0	0.0	0.0	0.0	0.0
175°	0.0	0.0	0.0	0.0	0.0
177.5°	0.0	0.0	0.0	0.0	0.0
180°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)