

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: P243180

Luminaire Tested: **S122DR-H485D927-X4F0-XX-UDD-D-W**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P243180
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-H485D927-X4F0-XX-UDD-D-W
Description: DEFINE 2 DIRECT RECESSED WITH SATIN DROP DIFFUSER.
HIGH PERFORMANCE LIGHT ENGINE
Light Source: (184) 2700K CCT, 90 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 1455.1 lumens
Efficiency: N/A
Efficacy: 84.6 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

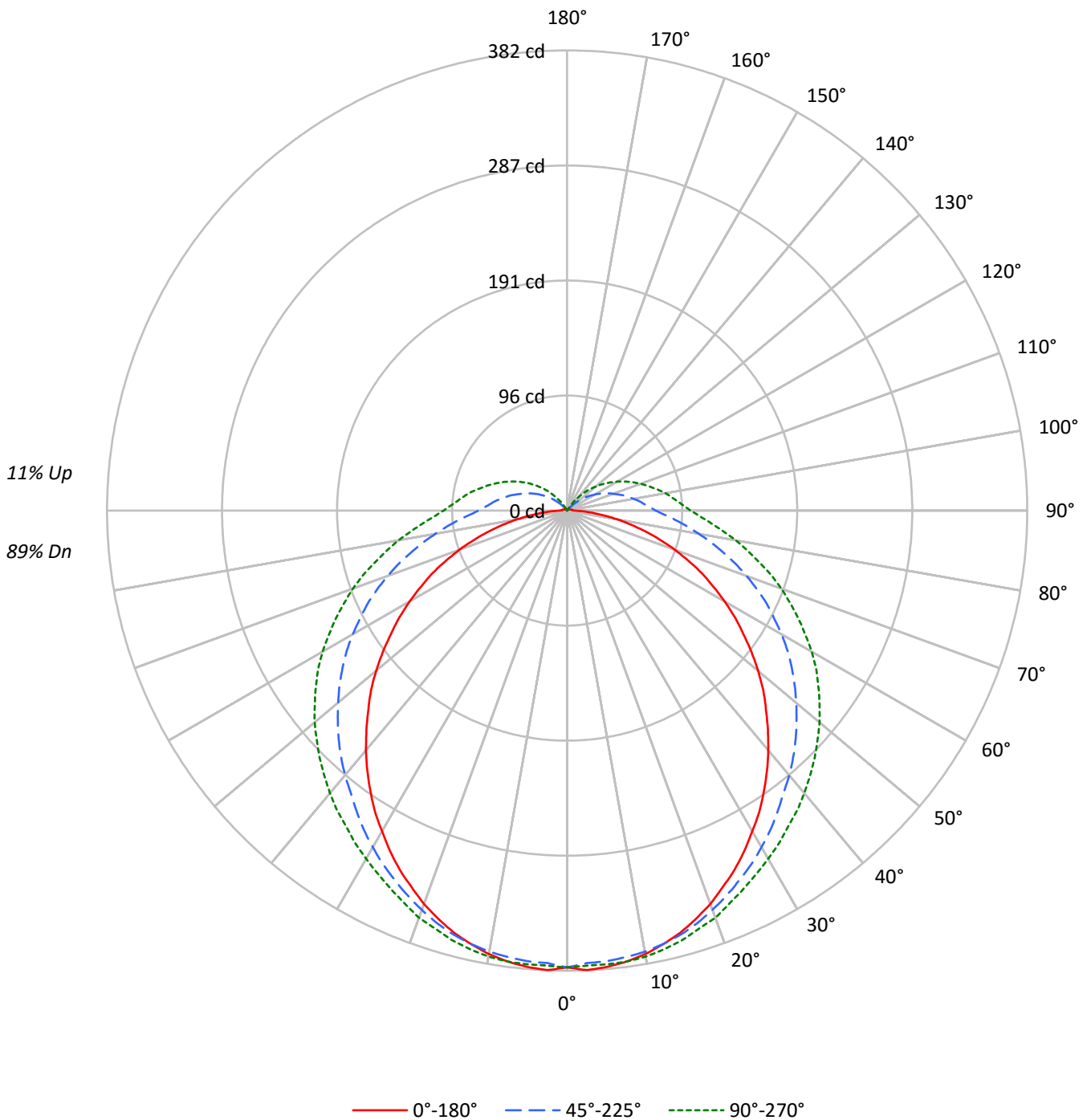
Input Watts (W): 17.2
Input Voltage (V): 120
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	7223	7223	7223
5°	7258	6926	6885
10°	7204	6696	6607
15°	7113	6460	6314
20°	6989	6205	6036
25°	6846	5951	5750
30°	6678	5714	5521
35°	6522	5477	5315
40°	6345	5275	5148
45°	6155	5092	4980
50°	5981	4904	4823
55°	5751	4728	4656
60°	5546	4533	4490
65°	5325	4336	4290
70°	5001	4099	4098
75°	4639	3848	3872
80°	4136	3602	3676
85°	3614	3407	3479



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	36.0	2.5
10°-20°	103.2	7.1
20°-30°	156.4	10.7
30°-40°	190.7	13.1
40°-50°	205.2	14.1
50°-60°	199.5	13.7
60°-70°	174.4	12.0
70°-80°	134.3	9.2
80°-90°	90.2	6.2
90°-100°	62.5	4.3
100°-110°	45.9	3.2
110°-120°	30.6	2.1
120°-130°	17.3	1.2
130°-140°	7.4	0.5
140°-150°	1.4	0.1
150°-160°	0.0	0.0
160°-170°	0.0	0.0
170°-180°	0.0	0.0
0°-30°	295.5	20.3
0°-40°	486.3	33.4
0°-60°	891.0	61.2
0°-90°	1290.0	88.7
90°-120°	139.0	9.5
90°-150°	165.1	11.3
90°-180°	165.0	11.3
0°-180°	1455.1	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	379	379	379	379	379	
5°	380	379	376	379	378	36
15°	363	364	364	369	369	102
25°	329	334	338	346	346	151
35°	285	294	305	316	320	178
45°	233	248	268	285	290	180
55°	178	200	228	248	255	160
65°	124	150	183	205	212	122
75°	68	99	134	158	165	72
85°	21	54	90	113	120	21
90°	6	38	73	96	102	4
95°	4	31	64	85	91	3
105°	3	19	49	68	73	3
115°	2	9	34	51	56	2
125°	2	1	20	34	40	1
135°	0	0	7	18	23	1
145°	0	0	0	4	6	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°	379.2	379.2	379.2	379.2	379.2
2.5°	381.8	380.3	376.0	379.2	378.1
5°	380.3	378.7	375.5	378.7	378.1
7.5°	377.6	376.6	373.9	378.1	377.6
10°	373.9	373.4	371.8	376.0	376.0
12.5°	368.6	369.2	368.6	373.4	372.9
15°	362.8	364.4	364.4	369.2	369.2
17.5°	355.4	358.1	359.1	364.4	363.9
20°	347.5	350.7	352.8	358.6	359.7
22.5°	338.0	342.8	345.9	352.3	352.8
25°	329.0	334.3	338.5	345.9	346.5
27.5°	318.5	324.8	331.1	338.5	340.1
30°	307.4	315.3	322.7	331.7	333.8
32.5°	296.8	304.7	314.2	323.7	327.4
35°	284.7	294.2	304.7	316.4	320.0
37.5°	272.5	282.6	295.2	309.0	313.7
40°	259.8	271.5	286.8	301.6	306.3
42.5°	246.6	259.3	277.8	293.1	298.4
45°	233.4	247.7	268.3	284.7	290.5
47.5°	220.8	236.1	258.3	276.7	282.0
50°	207.0	223.9	248.2	267.2	273.6
52.5°	192.8	211.8	238.2	257.7	264.1
55°	178.5	199.6	227.6	248.2	254.6
57.5°	165.3	187.5	217.1	237.7	245.1
60°	151.0	174.8	205.4	227.1	234.5
62.5°	136.8	162.7	193.8	216.0	222.9
65°	123.6	150.0	182.7	204.9	211.8
67.5°	108.8	136.8	170.6	193.8	200.2
70°	95.1	124.6	158.4	181.7	189.1
72.5°	81.3	111.4	146.3	169.5	177.5
75°	68.1	99.3	134.1	157.9	164.8
77.5°	54.4	87.1	122.5	146.3	153.2
80°	42.3	75.0	110.9	134.7	142.1
82.5°	30.1	63.9	100.3	123.6	130.4
85°	20.6	54.4	90.3	113.0	119.9
87.5°	12.1	45.4	80.8	103.5	110.4
90°	5.8	38.0	73.4	95.6	102.5
92.5°	4.8	34.3	68.1	89.8	96.6
95°	4.2	30.6	63.9	85.0	91.4
97.5°	4.2	28.0	60.2	80.8	87.1
100°	3.7	24.8	56.0	76.1	82.9
102.5°	3.7	21.7	52.3	71.8	78.2
105°	3.2	19.0	48.6	67.6	73.4
107.5°	2.6	16.4	44.4	63.4	69.2
110°	2.6	13.7	40.7	59.2	65.0



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	2.1	11.6	37.5	54.9	60.7
115°	2.1	9.0	33.8	50.7	56.5
117.5°	2.1	6.3	30.1	46.5	52.3
120°	1.6	4.2	26.9	42.8	48.1
122.5°	1.6	2.6	23.2	38.6	43.8
125°	1.6	1.1	20.1	34.3	39.6
127.5°	1.1	1.1	16.4	30.6	35.4
130°	1.1	0.5	13.2	26.4	31.2
132.5°	1.1	0.5	10.0	22.7	26.9
135°	0.5	0.5	6.9	18.5	23.2
137.5°	0.5	0.5	3.7	14.8	18.5
140°	0.5	0.0	1.6	11.1	14.3
142.5°	0.5	0.0	0.0	7.4	10.6
145°	0.5	0.0	0.0	4.2	6.3
147.5°	0.0	0.0	0.0	1.1	3.2
150°	0.0	0.0	0.0	0.0	0.5
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)