

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: P243199

Luminaire Tested: **S122DR-H485D930-X4F0-XX-UDD-D-W**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P243199
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-H485D930-X4F0-XX-UDD-D-W
Description: DEFINE 2 DIRECT RECESSED WITH SATIN DROP DIFFUSER.
HIGH PERFORMANCE LIGHT ENGINE
Light Source: (184) 3000K CCT, 90 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 1497.6 lumens
Efficiency: N/A
Efficacy: 87.1 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

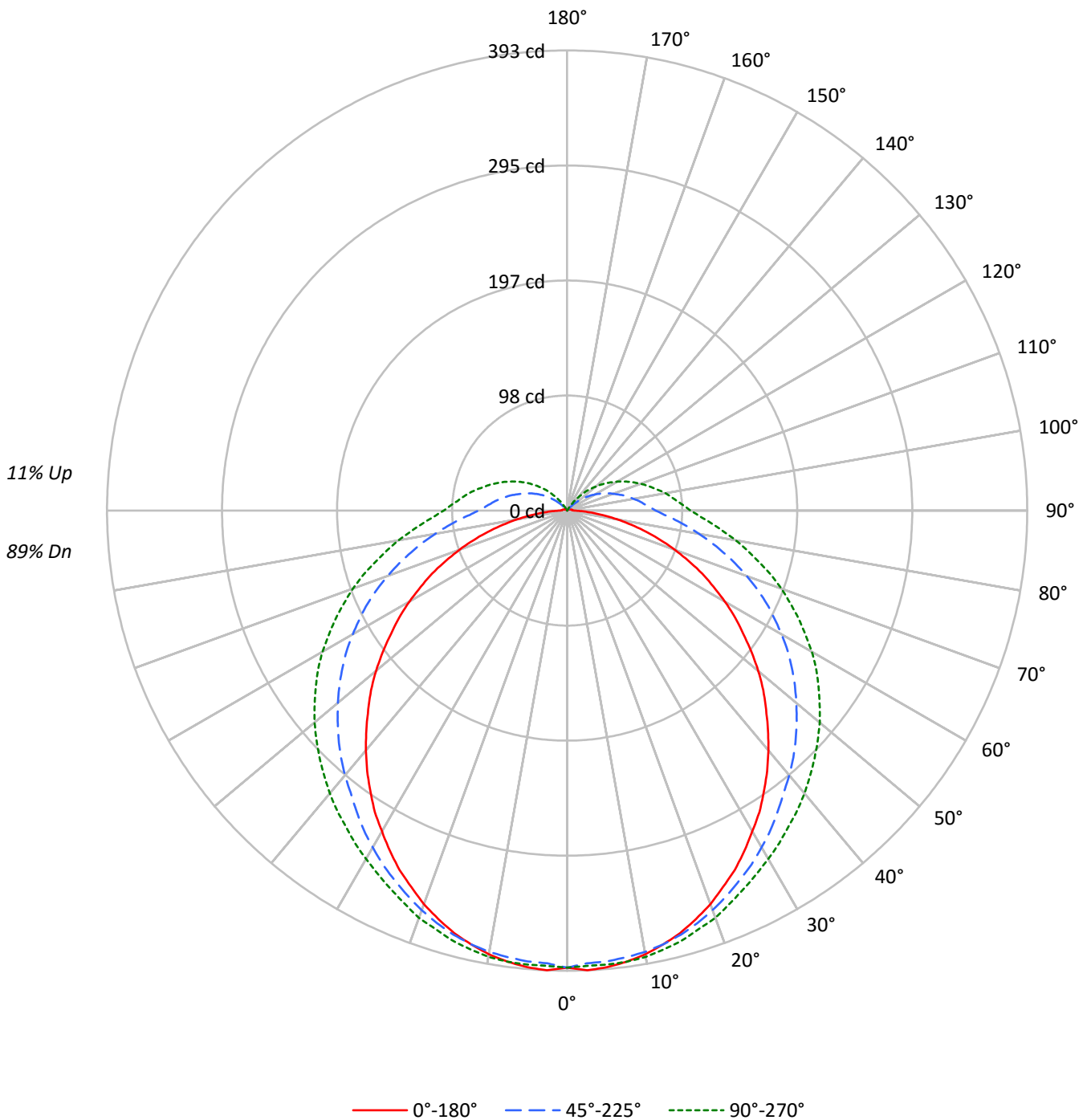
Input Watts (W): 17.2
Input Voltage (V): 120
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	7434	7434	7434
5°	7470	7129	7087
10°	7415	6892	6800
15°	7321	6648	6497
20°	7194	6386	6212
25°	7046	6125	5918
30°	6872	5881	5681
35°	6712	5637	5471
40°	6531	5428	5299
45°	6334	5240	5124
50°	6157	5049	4964
55°	5919	4867	4791
60°	5711	4665	4620
65°	5480	4464	4415
70°	5143	4221	4217
75°	4776	3963	3985
80°	4253	3705	3782
85°	3719	3505	3581



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	37.0	2.5
10°-20°	106.2	7.1
20°-30°	160.9	10.7
30°-40°	196.3	13.1
40°-50°	211.2	14.1
50°-60°	205.4	13.7
60°-70°	179.5	12.0
70°-80°	138.2	9.2
80°-90°	92.9	6.2
90°-100°	64.3	4.3
100°-110°	47.3	3.2
110°-120°	31.5	2.1
120°-130°	17.8	1.2
130°-140°	7.6	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°	304.2	20.3
0°-40°	500.4	33.4
0°-60°	917.1	61.2
0°-90°	1327.7	88.7
90°-120°	143.0	9.5
90°-150°	169.9	11.3
90°-180°	170.0	11.4
0°-180°	1497.6	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	390	390	390	390	390	
5°	391	390	386	390	389	37
15°	373	375	375	380	380	105
25°	339	344	348	356	357	156
35°	293	303	314	326	329	183
45°	240	255	276	293	299	186
55°	184	206	234	256	262	165
65°	127	154	188	211	218	125
75°	70	102	138	162	170	74
85°	21	56	93	116	123	22
90°	6	39	76	98	105	4
95°	4	32	66	88	94	4
105°	3	20	50	70	76	3
115°	2	9	35	52	58	2
125°	2	1	21	35	41	1
135°	0	0	7	19	24	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°	390.3	390.3	390.3	390.3	390.3
2.5°	393.0	391.4	387.0	390.3	389.2
5°	391.4	389.7	386.5	389.7	389.2
7.5°	388.6	387.5	384.8	389.2	388.6
10°	384.8	384.3	382.7	387.0	387.0
12.5°	379.4	379.9	379.4	384.3	383.7
15°	373.4	375.0	375.0	379.9	379.9
17.5°	365.8	368.5	369.6	375.0	374.5
20°	357.7	360.9	363.1	369.1	370.2
22.5°	347.9	352.8	356.0	362.5	363.1
25°	338.6	344.1	348.4	356.0	356.6
27.5°	327.8	334.3	340.8	348.4	350.0
30°	316.3	324.5	332.1	341.3	343.5
32.5°	305.5	313.6	323.4	333.2	337.0
35°	293.0	302.8	313.6	325.6	329.4
37.5°	280.5	290.8	303.8	318.0	322.9
40°	267.4	279.4	295.1	310.4	315.3
42.5°	253.8	266.9	285.9	301.7	307.1
45°	240.2	254.9	276.1	293.0	298.9
47.5°	227.2	243.0	265.8	284.8	290.3
50°	213.1	230.5	255.5	275.0	281.6
52.5°	198.4	218.0	245.1	265.3	271.8
55°	183.7	205.5	234.3	255.5	262.0
57.5°	170.1	193.0	223.4	244.6	252.2
60°	155.5	179.9	211.4	233.7	241.3
62.5°	140.8	167.4	199.5	222.3	229.4
65°	127.2	154.4	188.1	210.9	218.0
67.5°	112.0	140.8	175.6	199.5	206.0
70°	97.8	128.3	163.1	187.0	194.6
72.5°	83.7	114.7	150.6	174.5	182.6
75°	70.1	102.2	138.1	162.5	169.6
77.5°	56.0	89.7	126.1	150.6	157.6
80°	43.5	77.2	114.1	138.6	146.2
82.5°	31.0	65.8	103.3	127.2	134.3
85°	21.2	56.0	92.9	116.3	123.4
87.5°	12.5	46.7	83.2	106.5	113.6
90°	6.0	39.1	75.6	98.4	105.4
92.5°	4.9	35.3	70.1	92.4	99.5
95°	4.3	31.5	65.8	87.5	94.0
97.5°	4.3	28.8	62.0	83.2	89.7
100°	3.8	25.5	57.6	78.3	85.3
102.5°	3.8	22.3	53.8	73.9	80.4
105°	3.3	19.6	50.0	69.6	75.6
107.5°	2.7	16.8	45.7	65.2	71.2
110°	2.7	14.1	41.9	60.9	66.9



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	2.2	12.0	38.6	56.5	62.5
115°	2.2	9.2	34.8	52.2	58.2
117.5°	2.2	6.5	31.0	47.8	53.8
120°	1.6	4.3	27.7	44.0	49.5
122.5°	1.6	2.7	23.9	39.7	45.1
125°	1.6	1.1	20.7	35.3	40.8
127.5°	1.1	1.1	16.8	31.5	36.4
130°	1.1	0.5	13.6	27.2	32.1
132.5°	1.1	0.5	10.3	23.4	27.7
135°	0.5	0.5	7.1	19.0	23.9
137.5°	0.5	0.5	3.8	15.2	19.0
140°	0.5	0.0	1.6	11.4	14.7
142.5°	0.5	0.0	0.0	7.6	10.9
145°	0.5	0.0	0.0	4.3	6.5
147.5°	0.0	0.0	0.0	1.1	3.3
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)