

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: P243212

Luminaire Tested: **S122DR-H1005D940-X4F0-XX-UDD-D-W**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P243212
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-H1005D940-X4F0-XX-UDD-D-W
Description: DEFINE 2 DIRECT RECESSED WITH SATIN DROP DIFFUSER.
HIGH PERFORMANCE LIGHT ENGINE
Light Source: (184) 4000K CCT, 90 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 3455.8 lumens
Efficiency: N/A
Efficacy: 91.7 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

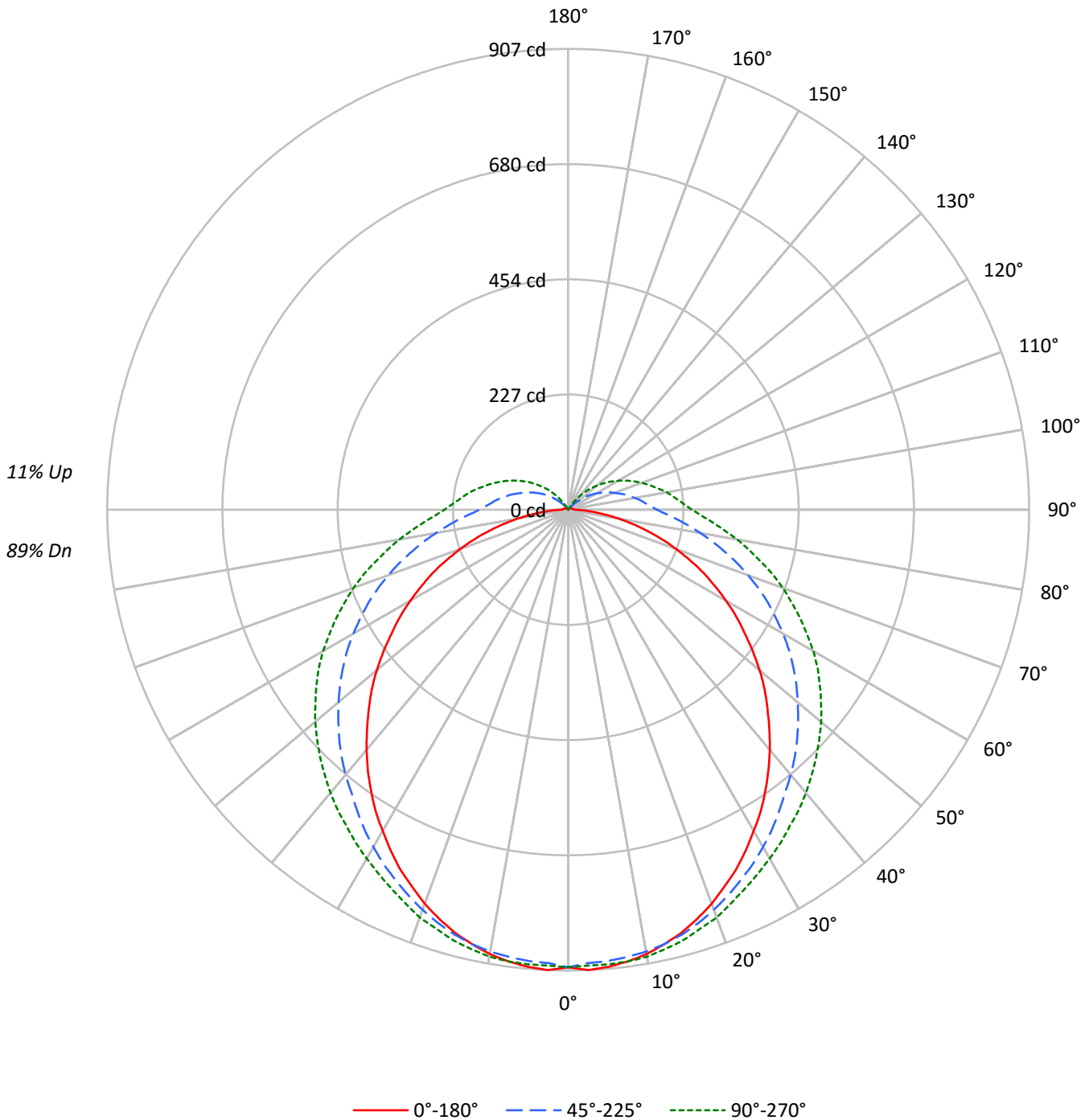
Input Watts (W): 37.7
Input Voltage (V): 120
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	17154	17154	17154
5°	17235	16448	16355
10°	17110	15903	15693
15°	16895	15344	14994
20°	16599	14736	14334
25°	16259	14134	13654
30°	15859	13571	13110
35°	15488	13009	12624
40°	15072	12528	12227
45°	14620	12094	11826
50°	14206	11649	11453
55°	13661	11229	11056
60°	13174	10768	10663
65°	12645	10300	10187
70°	11874	9739	9730
75°	11023	9142	9193
80°	9806	8554	8727
85°	8578	8094	8262



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	85.4	2.5
10°-20°	245.2	7.1
20°-30°	371.3	10.7
30°-40°	452.9	13.1
40°-50°	487.5	14.1
50°-60°	473.9	13.7
60°-70°	414.3	12.0
70°-80°	318.9	9.2
80°-90°	214.3	6.2
90°-100°	148.3	4.3
100°-110°	109.1	3.2
110°-120°	72.6	2.1
120°-130°	41.1	1.2
130°-140°	17.7	0.5
140°-150°	3.3	0.1
150°-160°	0.0	0.0
160°-170°	0.0	0.0
170°-180°	0.0	0.0
0°-30°	701.9	20.3
0°-40°	1154.9	33.4
0°-60°	2116.2	61.2
0°-90°	3063.7	88.7
90°-120°	330.0	9.5
90°-150°	392.1	11.3
90°-180°	392.0	11.3
0°-180°	3455.8	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	901	901	901	901	901	
5°	903	899	892	899	898	86
15°	862	866	866	877	877	243
25°	781	794	804	822	823	360
35°	676	699	724	751	760	423
45°	554	588	637	676	690	428
55°	424	474	541	590	605	380
65°	294	356	434	487	503	289
75°	162	236	319	375	391	171
85°	49	129	214	268	285	50
90°	14	90	174	227	243	9
95°	10	73	152	202	217	8
105°	8	45	115	161	174	8
115°	5	21	80	120	134	5
125°	4	2	48	82	94	3
135°	1	1	16	44	55	1
145°	1	0	0	10	15	1
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°	900.6	900.6	900.6	900.6	900.6
2.5°	906.9	903.1	893.1	900.6	898.1
5°	903.1	899.3	891.8	899.3	898.1
7.5°	896.8	894.3	888.0	898.1	896.8
10°	888.0	886.8	883.0	893.1	893.1
12.5°	875.5	876.8	875.5	886.8	885.5
15°	861.7	865.5	865.5	876.8	876.8
17.5°	844.1	850.4	852.9	865.5	864.2
20°	825.3	832.9	837.9	851.7	854.2
22.5°	802.8	814.0	821.6	836.6	837.9
25°	781.4	794.0	804.0	821.6	822.8
27.5°	756.3	771.4	786.4	804.0	807.8
30°	730.0	748.8	766.4	787.7	792.7
32.5°	704.9	723.7	746.3	768.9	777.7
35°	676.1	698.6	723.7	751.3	760.1
37.5°	647.2	671.0	701.2	733.8	745.1
40°	617.1	644.7	681.1	716.2	727.5
42.5°	585.8	615.9	659.8	696.1	708.7
45°	554.4	588.3	637.2	676.1	689.9
47.5°	524.3	560.7	613.4	657.3	669.8
50°	491.7	531.8	589.5	634.7	649.7
52.5°	457.8	503.0	565.7	612.1	627.1
55°	424.0	474.1	540.6	589.5	604.6
57.5°	392.6	445.3	515.5	564.4	582.0
60°	358.7	415.2	487.9	539.3	556.9
62.5°	324.9	386.3	460.3	513.0	529.3
65°	293.5	356.2	434.0	486.7	503.0
67.5°	258.4	324.9	405.1	460.3	475.4
70°	225.8	296.0	376.3	431.5	449.0
72.5°	193.2	264.7	347.4	402.6	421.4
75°	161.8	235.8	318.6	375.0	391.3
77.5°	129.2	207.0	291.0	347.4	363.7
80°	100.3	178.1	263.4	319.8	337.4
82.5°	71.5	151.8	238.3	293.5	309.8
85°	48.9	129.2	214.5	268.4	284.7
87.5°	28.8	107.9	191.9	245.8	262.1
90°	13.8	90.3	174.3	227.0	243.3
92.5°	11.3	81.5	161.8	213.2	229.5
95°	10.0	72.7	151.8	201.9	217.0
97.5°	10.0	66.5	143.0	191.9	207.0
100°	8.8	59.0	133.0	180.6	196.9
102.5°	8.8	51.4	124.2	170.6	185.6
105°	7.5	45.2	115.4	160.6	174.3
107.5°	6.3	38.9	105.4	150.5	164.3
110°	6.3	32.6	96.6	140.5	154.3



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	5.0	27.6	89.1	130.4	144.2
115°	5.0	21.3	80.3	120.4	134.2
117.5°	5.0	15.1	71.5	110.4	124.2
120°	3.8	10.0	64.0	101.6	114.1
122.5°	3.8	6.3	55.2	91.6	104.1
125°	3.8	2.5	47.7	81.5	94.1
127.5°	2.5	2.5	38.9	72.7	84.0
130°	2.5	1.3	31.4	62.7	74.0
132.5°	2.5	1.3	23.8	53.9	64.0
135°	1.3	1.3	16.3	43.9	55.2
137.5°	1.3	1.3	8.8	35.1	43.9
140°	1.3	0.0	3.8	26.3	33.9
142.5°	1.3	0.0	0.0	17.6	25.1
145°	1.3	0.0	0.0	10.0	15.1
147.5°	0.0	0.0	0.0	2.5	7.5
150°	0.0	0.0	0.0	0.0	1.3
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)