

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: P243188

Luminaire Tested: **S122DR-H1005D830-X4F0-XX-UDD-D-W**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P243188
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-H1005D830-X4F0-XX-UDD-D-W
Description: DEFINE 2 DIRECT RECESSED WITH SATIN DROP DIFFUSER.
HIGH PERFORMANCE LIGHT ENGINE
Light Source: (184) 3000K CCT, 80 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 3652.8 lumens
Efficiency: N/A
Efficacy: 96.9 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

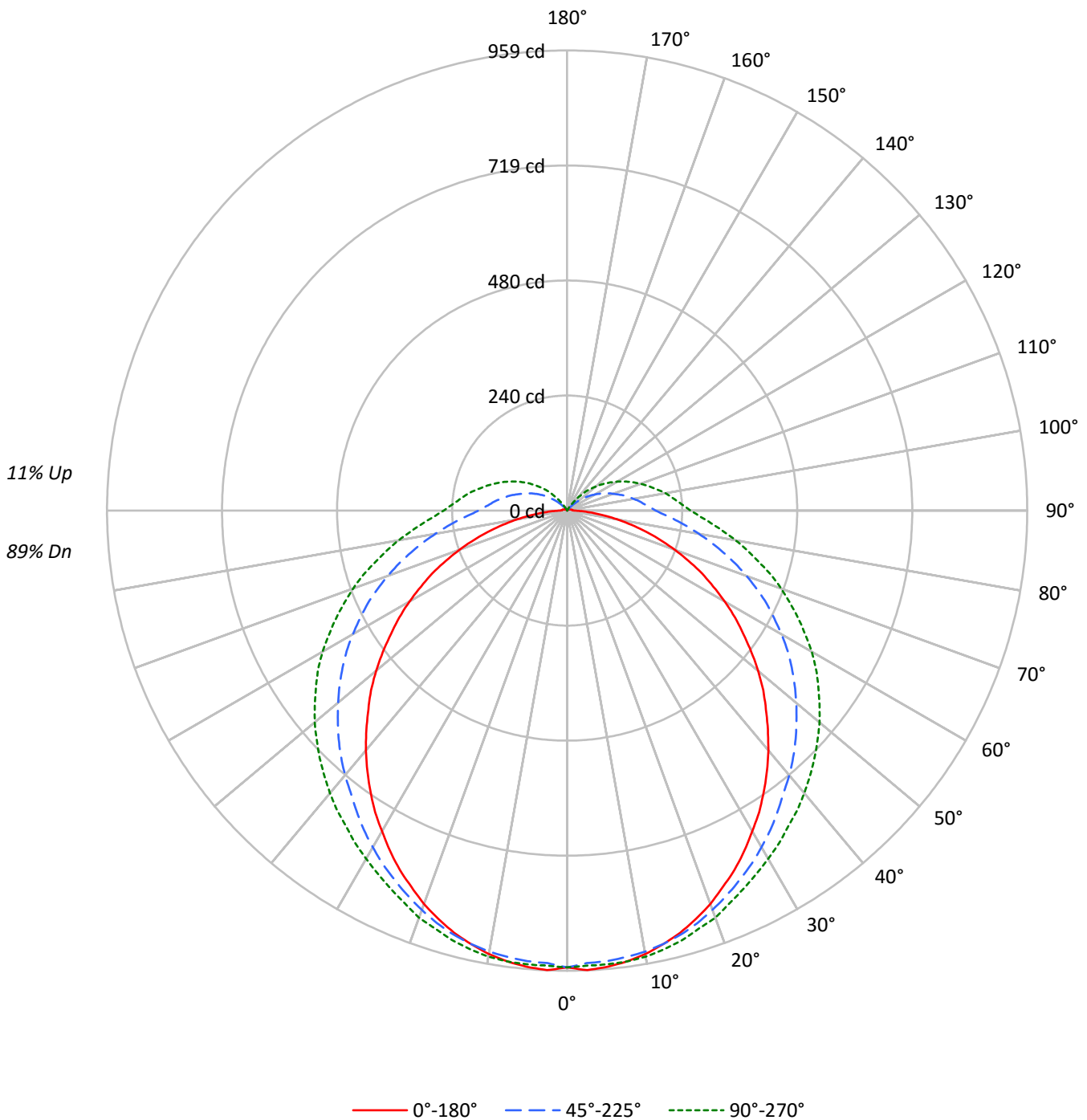
Input Watts (W): 37.7
Input Voltage (V): 120
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	18132	18132	18132
5°	18218	17385	17287
10°	18087	16811	16587
15°	17858	16218	15848
20°	17546	15575	15151
25°	17188	14939	14433
30°	16763	14345	13857
35°	16370	13752	13343
40°	15932	13242	12924
45°	15453	12783	12500
50°	15015	12312	12107
55°	14437	11869	11685
60°	13927	11381	11271
65°	13365	10886	10766
70°	12547	10293	10285
75°	11650	9665	9717
80°	10373	9041	9224
85°	9070	8554	8735



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	90.3	2.5
10°-20°	259.1	7.1
20°-30°	392.5	10.7
30°-40°	478.7	13.1
40°-50°	515.2	14.1
50°-60°	500.9	13.7
60°-70°	437.9	12.0
70°-80°	337.1	9.2
80°-90°	226.5	6.2
90°-100°	156.8	4.3
100°-110°	115.3	3.2
110°-120°	76.7	2.1
120°-130°	43.4	1.2
130°-140°	18.7	0.5
140°-150°	3.4	0.1
150°-160°	0.0	0.0
160°-170°	0.0	0.0
170°-180°	0.0	0.0
0°-30°	741.9	20.3
0°-40°	1220.7	33.4
0°-60°	2236.8	61.2
0°-90°	3238.4	88.7
90°-120°	348.9	9.6
90°-150°	414.4	11.3
90°-180°	414.0	11.3
0°-180°	3652.8	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	952	952	952	952	952	
5°	955	951	943	951	949	91
15°	911	915	915	927	927	257
25°	826	839	850	868	870	380
35°	715	738	765	794	803	447
45°	586	622	674	715	729	453
55°	448	501	571	623	639	402
65°	310	376	459	514	532	306
75°	171	249	337	396	414	180
85°	52	137	227	284	301	53
90°	15	96	184	240	257	10
95°	11	77	160	214	229	9
105°	8	48	122	170	184	8
115°	5	22	85	127	142	5
125°	4	3	50	86	99	3
135°	1	1	17	46	58	1
145°	1	0	0	11	16	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°	951.9	951.9	951.9	951.9	951.9
2.5°	958.6	954.6	944.0	951.9	949.3
5°	954.6	950.6	942.6	950.6	949.3
7.5°	947.9	945.3	938.7	949.3	947.9
10°	938.7	937.3	933.4	944.0	944.0
12.5°	925.4	926.7	925.4	937.3	936.0
15°	910.8	914.8	914.8	926.7	926.7
17.5°	892.3	898.9	901.5	914.8	913.5
20°	872.4	880.3	885.6	900.2	902.9
22.5°	848.5	860.4	868.4	884.3	885.6
25°	826.0	839.2	849.8	868.4	869.7
27.5°	799.5	815.4	831.3	849.8	853.8
30°	771.6	791.5	810.1	832.6	837.9
32.5°	745.1	765.0	788.8	812.7	822.0
35°	714.6	738.5	765.0	794.2	803.4
37.5°	684.1	709.3	741.1	775.6	787.5
40°	652.3	681.5	719.9	757.0	769.0
42.5°	619.1	651.0	697.4	735.8	749.1
45°	586.0	621.8	673.5	714.6	729.2
47.5°	554.2	592.6	648.3	694.7	708.0
50°	519.7	562.1	623.1	670.9	686.8
52.5°	483.9	531.6	597.9	647.0	662.9
55°	448.1	501.2	571.4	623.1	639.0
57.5°	415.0	470.7	544.9	596.6	615.2
60°	379.2	438.8	515.7	570.1	588.7
62.5°	343.4	408.3	486.6	542.3	559.5
65°	310.2	376.5	458.7	514.4	531.6
67.5°	273.1	343.4	428.2	486.6	502.5
70°	238.6	312.9	397.7	456.1	474.6
72.5°	204.2	279.7	367.2	425.6	445.5
75°	171.0	249.3	336.8	396.4	413.6
77.5°	136.6	218.8	307.6	367.2	384.5
80°	106.1	188.3	278.4	338.1	356.6
82.5°	75.6	160.4	251.9	310.2	327.5
85°	51.7	136.6	226.7	283.7	301.0
87.5°	30.5	114.0	202.8	259.9	277.1
90°	14.6	95.5	184.3	240.0	257.2
92.5°	11.9	86.2	171.0	225.4	242.6
95°	10.6	76.9	160.4	213.5	229.4
97.5°	10.6	70.3	151.1	202.8	218.8
100°	9.3	62.3	140.5	190.9	208.2
102.5°	9.3	54.4	131.3	180.3	196.2
105°	8.0	47.7	122.0	169.7	184.3
107.5°	6.6	41.1	111.4	159.1	173.7
110°	6.6	34.5	102.1	148.5	163.1



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	5.3	29.2	94.1	137.9	152.5
115°	5.3	22.5	84.9	127.3	141.9
117.5°	5.3	15.9	75.6	116.7	131.3
120°	4.0	10.6	67.6	107.4	120.6
122.5°	4.0	6.6	58.3	96.8	110.0
125°	4.0	2.7	50.4	86.2	99.4
127.5°	2.7	2.7	41.1	76.9	88.8
130°	2.7	1.3	33.1	66.3	78.2
132.5°	2.7	1.3	25.2	57.0	67.6
135°	1.3	1.3	17.2	46.4	58.3
137.5°	1.3	1.3	9.3	37.1	46.4
140°	1.3	0.0	4.0	27.8	35.8
142.5°	1.3	0.0	0.0	18.6	26.5
145°	1.3	0.0	0.0	10.6	15.9
147.5°	0.0	0.0	0.0	2.7	8.0
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)