

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: P243197

Luminaire Tested: **S122DR-H1005D840-X4F0-XX-UDD-D-W**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P243197
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-H1005D840-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: 3913.7 lumens
Efficiency: N/A
Efficacy: 103.8 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

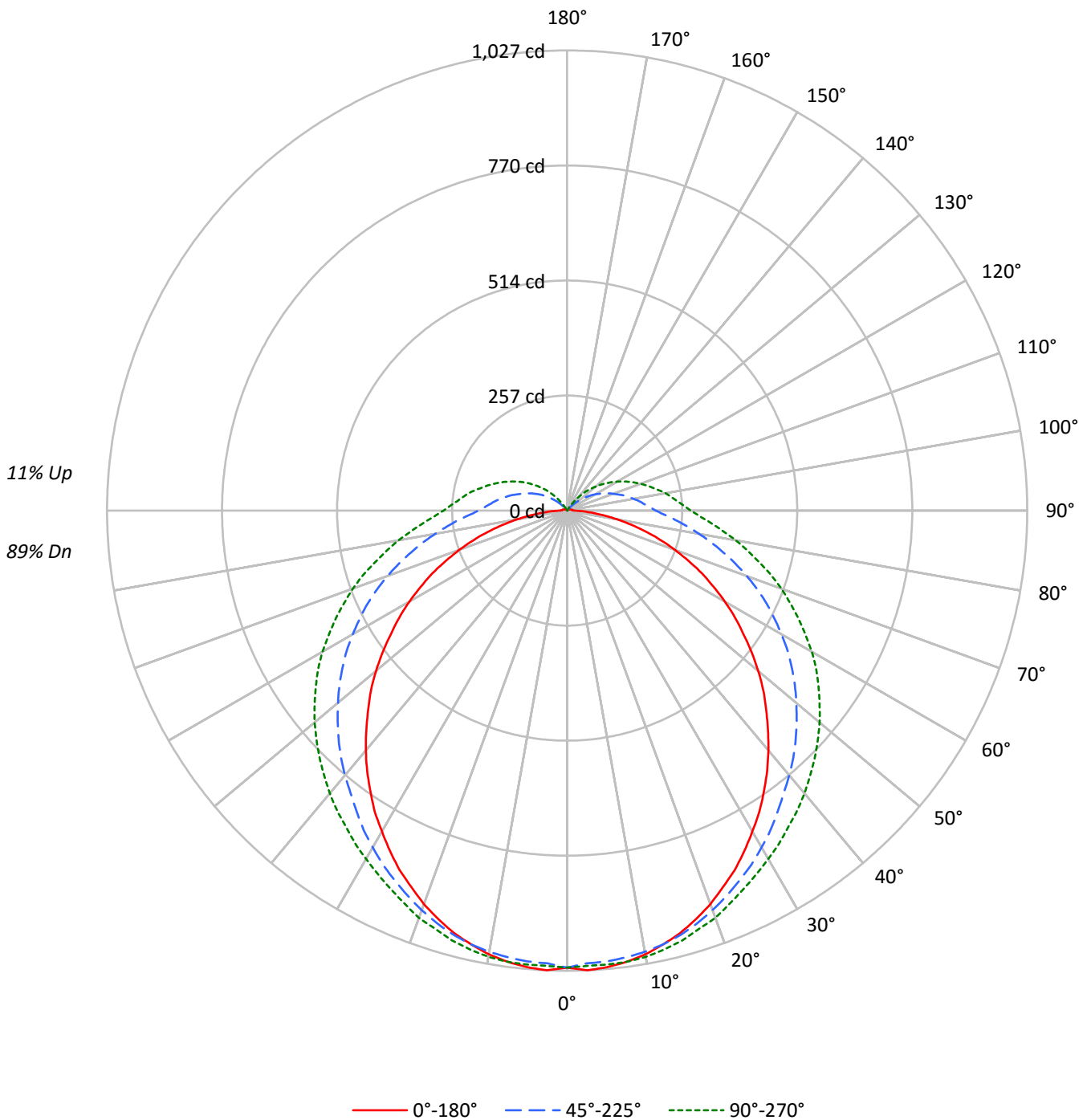
Input Watts (W): 37.7
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	19427	19427	19427
5°	19520	18628	18522
10°	19378	18010	17771
15°	19134	17375	16980
20°	18799	16688	16233
25°	18415	16007	15463
30°	17960	15369	14848
35°	17538	14733	14296
40°	17070	14187	13847
45°	16558	13696	13393
50°	16087	13192	12971
55°	15468	12716	12521
60°	14922	12196	12076
65°	14321	11665	11536
70°	13446	11028	11019
75°	12481	10353	10412
80°	11106	9687	9884
85°	9719	9165	9359



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	96.7	2.5
10°-20°	277.6	7.1
20°-30°	420.6	10.7
30°-40°	512.9	13.1
40°-50°	552.0	14.1
50°-60°	536.7	13.7
60°-70°	469.2	12.0
70°-80°	361.2	9.2
80°-90°	242.7	6.2
90°-100°	168.0	4.3
100°-110°	123.5	3.2
110°-120°	82.2	2.1
120°-130°	46.5	1.2
130°-140°	20.0	0.5
140°-150°	3.7	0.1
150°-160°	0.0	0.0
160°-170°	0.0	0.0
170°-180°	0.0	0.0
0°-30°	794.9	20.3
0°-40°	1307.9	33.4
0°-60°	2396.6	61.2
0°-90°	3469.7	88.7
90°-120°	373.7	9.5
90°-150°	444.0	11.3
90°-180°	444.0	11.3
0°-180°	3913.7	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1020	1020	1020	1020	1020	
5°	1023	1018	1010	1018	1017	97
15°	976	980	980	993	993	275
25°	885	899	910	930	932	407
35°	766	791	820	851	861	479
45°	628	666	722	766	781	485
55°	480	537	612	668	685	430
65°	332	403	492	551	570	328
75°	183	267	361	425	443	193
85°	55	146	243	304	322	57
90°	16	102	197	257	276	11
95°	11	82	172	229	246	9
105°	8	51	131	182	197	9
115°	6	24	91	136	152	6
125°	4	3	54	92	106	3
135°	1	1	18	50	62	2
145°	1	0	0	11	17	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°	1019.9	1019.9	1019.9	1019.9	1019.9
2.5°	1027.0	1022.8	1011.4	1019.9	1017.1
5°	1022.8	1018.5	1010.0	1018.5	1017.1
7.5°	1015.7	1012.8	1005.7	1017.1	1015.7
10°	1005.7	1004.3	1000.0	1011.4	1011.4
12.5°	991.5	992.9	991.5	1004.3	1002.9
15°	975.9	980.1	980.1	992.9	992.9
17.5°	956.0	963.1	965.9	980.1	978.7
20°	934.7	943.2	948.9	964.5	967.4
22.5°	909.1	921.9	930.4	947.5	948.9
25°	885.0	899.2	910.5	930.4	931.8
27.5°	856.6	873.6	890.7	910.5	914.8
30°	826.7	848.0	867.9	892.1	897.8
32.5°	798.3	819.6	845.2	870.8	880.7
35°	765.6	791.2	819.6	850.9	860.8
37.5°	733.0	760.0	794.1	831.0	843.8
40°	698.9	730.1	771.3	811.1	823.9
42.5°	663.4	697.5	747.2	788.4	802.6
45°	627.9	666.2	721.6	765.6	781.3
47.5°	593.8	635.0	694.6	744.3	758.5
50°	556.8	602.3	667.6	718.8	735.8
52.5°	518.5	569.6	640.6	693.2	710.2
55°	480.1	536.9	612.2	667.6	684.7
57.5°	444.6	504.3	583.8	639.2	659.1
60°	406.3	470.2	552.6	610.8	630.7
62.5°	367.9	437.5	521.3	581.0	599.4
65°	332.4	403.4	491.5	551.2	569.6
67.5°	292.6	367.9	458.8	521.3	538.4
70°	255.7	335.2	426.1	488.7	508.5
72.5°	218.8	299.7	393.5	456.0	477.3
75°	183.2	267.1	360.8	424.7	443.2
77.5°	146.3	234.4	329.6	393.5	411.9
80°	113.6	201.7	298.3	362.2	382.1
82.5°	81.0	171.9	269.9	332.4	350.9
85°	55.4	146.3	242.9	304.0	322.5
87.5°	32.7	122.2	217.3	278.4	296.9
90°	15.6	102.3	197.4	257.1	275.6
92.5°	12.8	92.3	183.2	241.5	260.0
95°	11.4	82.4	171.9	228.7	245.7
97.5°	11.4	75.3	161.9	217.3	234.4
100°	9.9	66.8	150.6	204.6	223.0
102.5°	9.9	58.2	140.6	193.2	210.2
105°	8.5	51.1	130.7	181.8	197.4
107.5°	7.1	44.0	119.3	170.5	186.1
110°	7.1	36.9	109.4	159.1	174.7



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	5.7	31.3	100.9	147.7	163.4
115°	5.7	24.1	90.9	136.4	152.0
117.5°	5.7	17.0	81.0	125.0	140.6
120°	4.3	11.4	72.4	115.1	129.3
122.5°	4.3	7.1	62.5	103.7	117.9
125°	4.3	2.8	54.0	92.3	106.5
127.5°	2.8	2.8	44.0	82.4	95.2
130°	2.8	1.4	35.5	71.0	83.8
132.5°	2.8	1.4	27.0	61.1	72.4
135°	1.4	1.4	18.5	49.7	62.5
137.5°	1.4	1.4	9.9	39.8	49.7
140°	1.4	0.0	4.3	29.8	38.4
142.5°	1.4	0.0	0.0	19.9	28.4
145°	1.4	0.0	0.0	11.4	17.0
147.5°	0.0	0.0	0.0	2.8	8.5
150°	0.0	0.0	0.0	0.0	1.4
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)