

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: P243196

Luminaire Tested: **S122DR-H865D840-X4F0-XX-UDD-D-W**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P243196
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-H865D840-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: 3350.2 lumens
Efficiency: N/A
Efficacy: 106.4 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

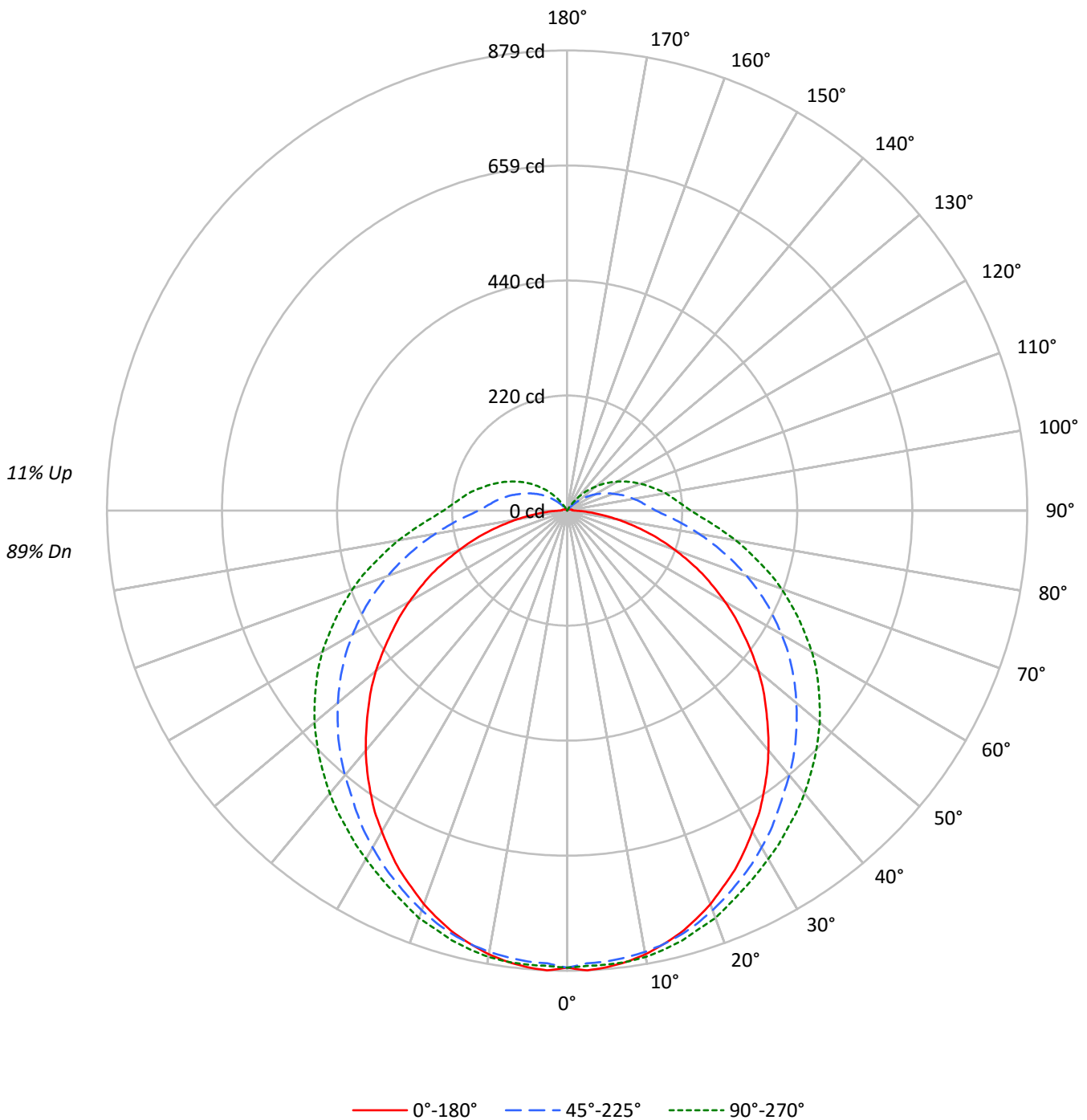
Input Watts (W): 31.5
Input Voltage (V): 120
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	16631	16631	16631
5°	16709	15947	15854
10°	16588	15417	15213
15°	16379	14874	14536
20°	16092	14286	13896
25°	15764	13702	13238
30°	15375	13157	12710
35°	15014	12612	12238
40°	14613	12146	11854
45°	14174	11724	11465
50°	13773	11293	11104
55°	13242	10886	10718
60°	12774	10439	10337
65°	12257	9984	9875
70°	11511	9441	9433
75°	10689	8864	8914
80°	9513	8294	8461
85°	8315	7845	8009



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	82.8	2.5
10°-20°	237.7	7.1
20°-30°	360.0	10.7
30°-40°	439.1	13.1
40°-50°	472.5	14.1
50°-60°	459.4	13.7
60°-70°	401.6	12.0
70°-80°	309.2	9.2
80°-90°	207.7	6.2
90°-100°	143.8	4.3
100°-110°	105.8	3.2
110°-120°	70.4	2.1
120°-130°	39.8	1.2
130°-140°	17.1	0.5
140°-150°	3.2	0.1
150°-160°	0.0	0.0
160°-170°	0.0	0.0
170°-180°	0.0	0.0
0°-30°	680.5	20.3
0°-40°	1119.6	33.4
0°-60°	2051.5	61.2
0°-90°	2970.1	88.7
90°-120°	319.9	9.5
90°-150°	380.0	11.3
90°-180°	380.0	11.3
0°-180°	3350.2	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	873	873	873	873	873	
5°	876	872	865	872	871	83
15°	835	839	839	850	850	235
25°	758	770	779	796	798	349
35°	655	677	702	728	737	410
45°	538	570	618	655	669	415
55°	411	460	524	572	586	368
65°	284	345	421	472	488	280
75°	157	229	309	364	379	165
85°	47	125	208	260	276	49
90°	13	88	169	220	236	9
95°	10	70	147	196	210	8
105°	7	44	112	156	169	8
115°	5	21	78	117	130	5
125°	4	2	46	79	91	3
135°	1	1	16	43	54	1
145°	1	0	0	10	15	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°	873.1	873.1	873.1	873.1	873.1
2.5°	879.2	875.5	865.8	873.1	870.6
5°	875.5	871.9	864.6	871.9	870.6
7.5°	869.4	867.0	860.9	870.6	869.4
10°	860.9	859.7	856.0	865.8	865.8
12.5°	848.8	850.0	848.8	859.7	858.5
15°	835.4	839.0	839.0	850.0	850.0
17.5°	818.4	824.4	826.9	839.0	837.8
20°	800.1	807.4	812.3	825.6	828.1
22.5°	778.2	789.2	796.5	811.1	812.3
25°	757.6	769.7	779.4	796.5	797.7
27.5°	733.2	747.8	762.4	779.4	783.1
30°	707.7	725.9	743.0	763.6	768.5
32.5°	683.4	701.6	723.5	745.4	753.9
35°	655.4	677.3	701.6	728.4	736.9
37.5°	627.4	650.5	679.7	711.3	722.3
40°	598.3	625.0	660.3	694.3	705.3
42.5°	567.9	597.0	639.6	674.9	687.0
45°	537.5	570.3	617.7	655.4	668.8
47.5°	508.3	543.5	594.6	637.2	649.3
50°	476.7	515.6	571.5	615.3	629.9
52.5°	443.8	487.6	548.4	593.4	608.0
55°	411.0	459.6	524.1	571.5	586.1
57.5°	380.6	431.7	499.8	547.2	564.2
60°	347.8	402.5	473.0	522.9	539.9
62.5°	314.9	374.5	446.3	497.3	513.1
65°	284.5	345.3	420.7	471.8	487.6
67.5°	250.5	314.9	392.8	446.3	460.9
70°	218.9	287.0	364.8	418.3	435.3
72.5°	187.3	256.6	336.8	390.3	408.6
75°	156.9	228.6	308.9	363.6	379.4
77.5°	125.2	200.6	282.1	336.8	352.6
80°	97.3	172.7	255.4	310.1	327.1
82.5°	69.3	147.1	231.0	284.5	300.3
85°	47.4	125.2	207.9	260.2	276.0
87.5°	28.0	104.6	186.0	238.3	254.1
90°	13.4	87.6	169.0	220.1	235.9
92.5°	10.9	79.0	156.9	206.7	222.5
95°	9.7	70.5	147.1	195.8	210.4
97.5°	9.7	64.4	138.6	186.0	200.6
100°	8.5	57.2	128.9	175.1	190.9
102.5°	8.5	49.9	120.4	165.4	180.0
105°	7.3	43.8	111.9	155.6	169.0
107.5°	6.1	37.7	102.1	145.9	159.3
110°	6.1	31.6	93.6	136.2	149.6



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	4.9	26.8	86.3	126.5	139.8
115°	4.9	20.7	77.8	116.7	130.1
117.5°	4.9	14.6	69.3	107.0	120.4
120°	3.6	9.7	62.0	98.5	110.7
122.5°	3.6	6.1	53.5	88.8	100.9
125°	3.6	2.4	46.2	79.0	91.2
127.5°	2.4	2.4	37.7	70.5	81.5
130°	2.4	1.2	30.4	60.8	71.7
132.5°	2.4	1.2	23.1	52.3	62.0
135°	1.2	1.2	15.8	42.6	53.5
137.5°	1.2	1.2	8.5	34.0	42.6
140°	1.2	0.0	3.6	25.5	32.8
142.5°	1.2	0.0	0.0	17.0	24.3
145°	1.2	0.0	0.0	9.7	14.6
147.5°	0.0	0.0	0.0	2.4	7.3
150°	0.0	0.0	0.0	0.0	1.2
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)