

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: P243206

Luminaire Tested: **S122DR-H865D935-X4F0-XX-UDD-D-W**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P243206
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-H865D935-X4F0-XX-UDD-D-W
Description: DEFINE 2 DIRECT RECESSED WITH SATIN DROP DIFFUSER.
HIGH PERFORMANCE LIGHT ENGINE
Light Source: (184) 3500K CCT, 90 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 2856.3 lumens
Efficiency: N/A
Efficacy: 90.7 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

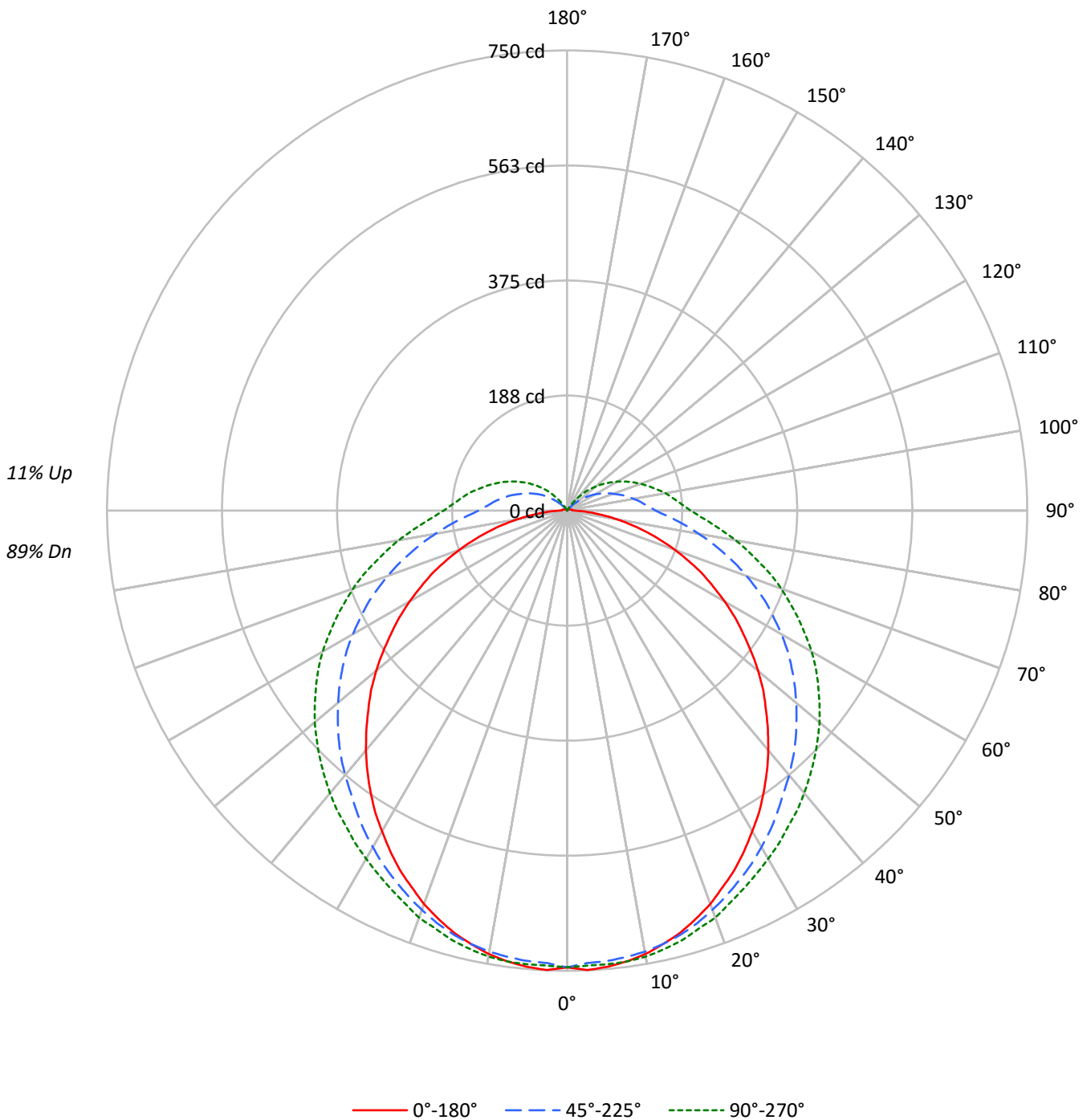
Input Watts (W): 31.5
Input Voltage (V): 120
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	14179	14179	14179
5°	14245	13595	13517
10°	14143	13146	12971
15°	13964	12681	12393
20°	13721	12179	11847
25°	13440	11682	11286
30°	13109	11216	10836
35°	12801	10753	10435
40°	12459	10354	10106
45°	12083	9997	9775
50°	11742	9629	9466
55°	11290	9281	9138
60°	10890	8901	8813
65°	10452	8513	8419
70°	9812	8049	8042
75°	9109	7556	7600
80°	8105	7070	7214
85°	7087	6690	6828



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	70.6	2.5
10°-20°	202.6	7.1
20°-30°	306.9	10.7
30°-40°	374.4	13.1
40°-50°	402.9	14.1
50°-60°	391.7	13.7
60°-70°	342.4	12.0
70°-80°	263.6	9.2
80°-90°	177.1	6.2
90°-100°	122.6	4.3
100°-110°	90.2	3.2
110°-120°	60.0	2.1
120°-130°	34.0	1.2
130°-140°	14.6	0.5
140°-150°	2.7	0.1
150°-160°	0.0	0.0
160°-170°	0.0	0.0
170°-180°	0.0	0.0
0°-30°	580.2	20.3
0°-40°	954.5	33.4
0°-60°	1749.1	61.2
0°-90°	2532.3	88.7
90°-120°	272.7	9.5
90°-150°	324.0	11.3
90°-180°	324.0	11.3
0°-180°	2856.3	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	744	744	744	744	744	
5°	746	743	737	743	742	71
15°	712	715	715	725	725	201
25°	646	656	664	679	680	297
35°	559	578	598	621	628	350
45°	458	486	527	559	570	354
55°	350	392	447	487	500	314
65°	243	294	359	402	416	239
75°	134	195	263	310	324	141
85°	40	107	177	222	235	42
90°	11	75	144	188	201	8
95°	8	60	125	167	179	7
105°	6	37	95	133	144	7
115°	4	18	66	100	111	4
125°	3	2	39	67	78	2
135°	1	1	14	36	46	1
145°	1	0	0	8	12	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°	744.4	744.4	744.4	744.4	744.4
2.5°	749.6	746.4	738.2	744.4	742.3
5°	746.4	743.3	737.1	743.3	742.3
7.5°	741.3	739.2	734.0	742.3	741.3
10°	734.0	733.0	729.9	738.2	738.2
12.5°	723.6	724.7	723.6	733.0	731.9
15°	712.2	715.3	715.3	724.7	724.7
17.5°	697.7	702.9	705.0	715.3	714.3
20°	682.2	688.4	692.5	703.9	706.0
22.5°	663.5	672.8	679.1	691.5	692.5
25°	645.9	656.3	664.5	679.1	680.1
27.5°	625.1	637.6	650.0	664.5	667.7
30°	603.4	618.9	633.4	651.1	655.2
32.5°	582.6	598.2	616.9	635.5	642.8
35°	558.8	577.5	598.2	621.0	628.3
37.5°	535.0	554.7	579.5	606.5	615.8
40°	510.1	532.9	562.9	592.0	601.3
42.5°	484.2	509.0	545.3	575.4	585.8
45°	458.2	486.2	526.7	558.8	570.2
47.5°	433.4	463.4	507.0	543.2	553.6
50°	406.4	439.6	487.3	524.6	537.0
52.5°	378.4	415.7	467.6	505.9	518.4
55°	350.4	391.9	446.8	487.3	499.7
57.5°	324.5	368.0	426.1	466.5	481.0
60°	296.5	343.2	403.3	445.8	460.3
62.5°	268.5	319.3	380.5	424.0	437.5
65°	242.6	294.4	358.7	402.3	415.7
67.5°	213.6	268.5	334.9	380.5	392.9
70°	186.6	244.7	311.0	356.6	371.1
72.5°	159.7	218.8	287.2	332.8	348.3
75°	133.7	194.9	263.3	310.0	323.5
77.5°	106.8	171.1	240.5	287.2	300.7
80°	82.9	147.2	217.7	264.4	278.9
82.5°	59.1	125.4	197.0	242.6	256.1
85°	40.4	106.8	177.3	221.9	235.3
87.5°	23.8	89.2	158.6	203.2	216.7
90°	11.4	74.6	144.1	187.6	201.1
92.5°	9.3	67.4	133.7	176.2	189.7
95°	8.3	60.1	125.4	166.9	179.4
97.5°	8.3	54.9	118.2	158.6	171.1
100°	7.3	48.7	109.9	149.3	162.8
102.5°	7.3	42.5	102.6	141.0	153.4
105°	6.2	37.3	95.4	132.7	144.1
107.5°	5.2	32.1	87.1	124.4	135.8
110°	5.2	27.0	79.8	116.1	127.5



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	4.1	22.8	73.6	107.8	119.2
115°	4.1	17.6	66.4	99.5	110.9
117.5°	4.1	12.4	59.1	91.2	102.6
120°	3.1	8.3	52.9	84.0	94.3
122.5°	3.1	5.2	45.6	75.7	86.0
125°	3.1	2.1	39.4	67.4	77.8
127.5°	2.1	2.1	32.1	60.1	69.5
130°	2.1	1.0	25.9	51.8	61.2
132.5°	2.1	1.0	19.7	44.6	52.9
135°	1.0	1.0	13.5	36.3	45.6
137.5°	1.0	1.0	7.3	29.0	36.3
140°	1.0	0.0	3.1	21.8	28.0
142.5°	1.0	0.0	0.0	14.5	20.7
145°	1.0	0.0	0.0	8.3	12.4
147.5°	0.0	0.0	0.0	2.1	6.2
150°	0.0	0.0	0.0	0.0	1.0
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)