

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: P242347

Luminaire Tested: **S122DR-S1005D935-X4F0-XX-UDD-D-W**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P242347  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1802-639-14)  
Test Lab: INNOVATION CENTER  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: NEO-RAY  
Catalog Number: S122DR-S1005D935-X4F0-XX-UDD-D-W  
Description: DEFINE 2 DIRECT RECESSED WITH SATIN DROP DIFFUSER  
STANDARD LIGHT ENGINE  
Light Source: (92) 3500K CCT, 90 CRI LEDS  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 3359.6 lumens  
Efficiency: N/A  
Efficacy: 81.7 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

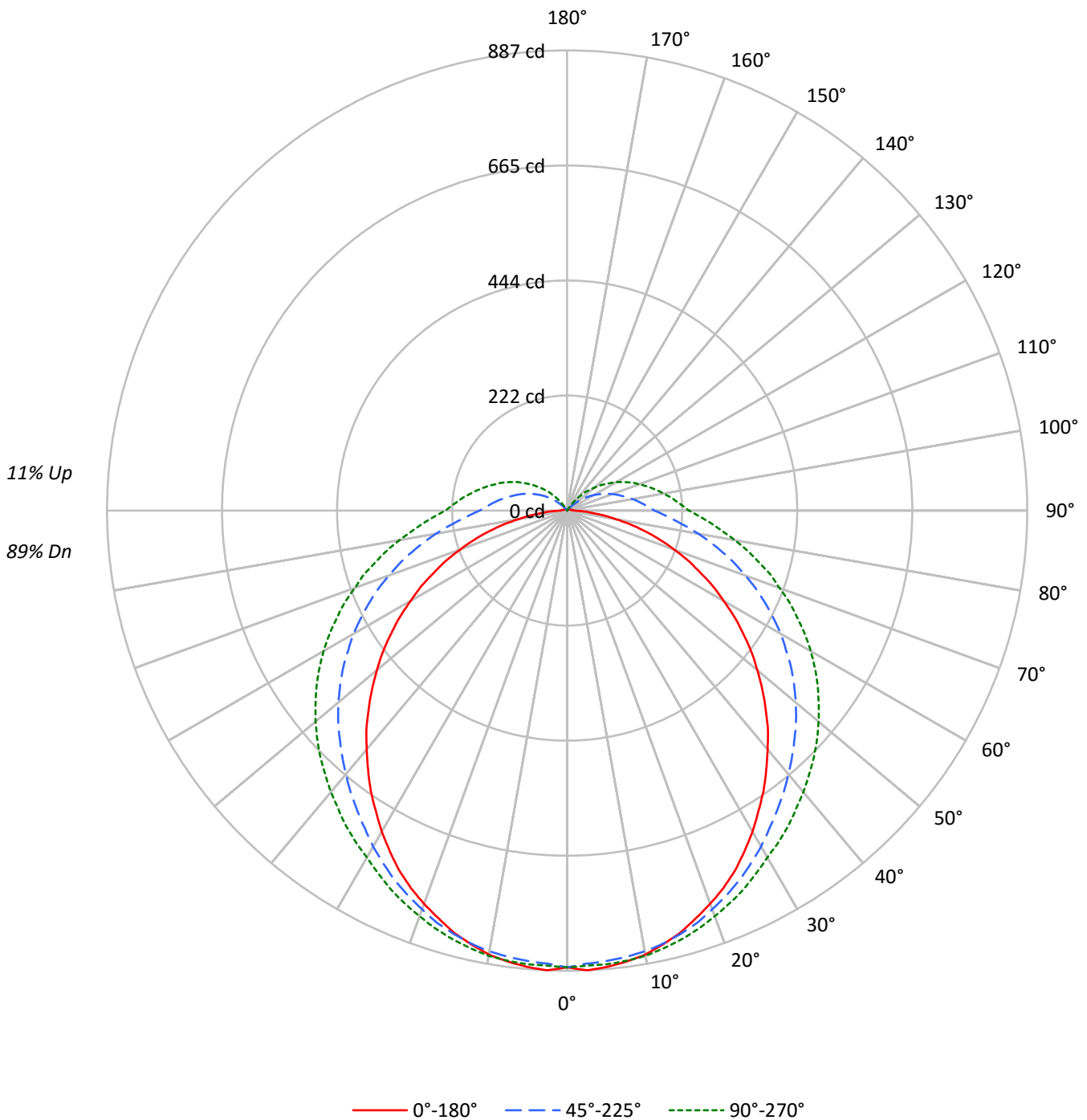
Input Watts (W): 41.1  
Input Voltage (V): 120  
Input Current (A<sub>in</sub>): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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	85	81		82	79	77		77	75	72	69
2	94	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	42	39
5	71	57	48	41	68	56	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		42	36	31	29
7	60	46	37	31	58	45	37	31	43	35	30		40	34	29		38	32	28	25
8	56	42	34	28	54	41	33	27	39	32	26		37	30	25		35	29	25	23
9	52	39	30	25	50	38	30	24	36	29	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°	16772	16772	16772
5°	16852	16076	15987
10°	16744	15536	15315
15°	16513	14977	14622
20°	16221	14386	13961
25°	15931	13820	13362
30°	15524	13242	12768
35°	15112	12686	12335
40°	14679	12206	11903
45°	14269	11771	11528
50°	13825	11372	11157
55°	13361	10947	10780
60°	12796	10505	10383
65°	12206	9994	9924
70°	11542	9446	9429
75°	10696	8899	8963
80°	9356	8330	8482
85°	8052	7799	8073



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	83.5	2.5
10°-20°	239.4	7.1
20°-30°	362.7	10.8
30°-40°	441.7	13.1
40°-50°	475.2	14.1
50°-60°	461.5	13.7
60°-70°	403.0	12.0
70°-80°	310.2	9.2
80°-90°	207.8	6.2
90°-100°	143.3	4.3
100°-110°	104.7	3.1
110°-120°	69.1	2.1
120°-130°	38.5	1.1
130°-140°	16.2	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°	685.6	20.4
0°-40°	1127.3	33.6
0°-60°	2064.1	61.4
0°-90°	2985.1	88.9
90°-120°	317.1	9.4
90°-150°	374.5	11.1
90°-180°	375.0	11.2
0°-180°	3359.6	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	880	880	880	880	880	
5°	883	879	872	879	878	84
15°	842	845	845	856	855	237
25°	766	775	786	801	805	352
35°	660	681	706	734	743	412
45°	541	576	620	660	672	418
55°	415	461	527	573	590	371
65°	283	346	421	473	490	281
75°	157	228	310	365	382	166
85°	46	125	207	260	278	48
90°	13	87	168	220	235	9
95°	10	70	147	195	211	8
105°	6	43	110	154	168	7
115°	5	19	77	115	129	5
125°	3	3	43	78	89	3
135°	1	1	14	41	51	1
145°	0	0	0	8	14	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°	880.5	880.5	880.5	880.5	880.5
2.5°	886.9	883.0	874.1	880.5	877.9
5°	883.0	879.2	871.6	879.2	877.9
7.5°	876.7	874.1	867.7	876.7	875.4
10°	869.0	866.5	862.6	872.8	871.6
12.5°	856.2	857.5	855.0	865.2	863.9
15°	842.2	844.8	844.8	856.2	855.0
17.5°	824.3	829.4	833.3	844.8	844.8
20°	806.5	812.9	818.0	832.0	832.0
22.5°	787.3	795.0	802.6	816.7	819.2
25°	765.6	774.6	786.1	801.4	805.2
27.5°	740.1	754.2	766.9	786.1	788.6
30°	714.6	731.2	747.8	768.2	772.0
32.5°	686.5	705.7	726.1	750.3	758.0
35°	659.7	681.4	705.7	733.7	742.7
37.5°	630.4	654.6	685.2	715.9	724.8
40°	601.0	629.1	663.6	696.7	708.2
42.5°	573.0	601.0	641.9	678.9	690.4
45°	541.1	575.5	620.2	659.7	672.5
47.5°	510.4	547.4	598.5	639.3	653.3
50°	478.5	518.1	575.5	618.9	632.9
52.5°	447.9	490.0	551.3	595.9	611.2
55°	414.7	460.7	527.0	573.0	589.5
57.5°	382.8	433.9	500.2	550.0	566.6
60°	348.4	403.2	476.0	524.5	542.3
62.5°	317.7	375.2	447.9	500.2	516.8
65°	283.3	345.8	421.1	473.4	490.0
67.5°	252.7	317.7	394.3	446.6	464.5
70°	219.5	285.8	365.0	419.8	435.1
72.5°	188.9	257.8	338.2	391.8	410.9
75°	157.0	228.4	310.1	365.0	381.5
77.5°	126.3	200.3	283.3	338.2	356.0
80°	95.7	173.5	256.5	310.1	327.9
82.5°	70.2	146.7	231.0	284.6	301.2
85°	45.9	125.1	206.7	260.3	278.2
87.5°	28.1	104.6	186.3	238.6	255.2
90°	12.8	86.8	168.4	219.5	234.8
92.5°	11.5	79.1	157.0	206.7	222.0
95°	10.2	70.2	146.7	195.2	210.6
97.5°	8.9	63.8	137.8	185.0	200.3
100°	8.9	56.1	127.6	174.8	188.9
102.5°	7.7	49.8	118.7	164.6	178.6
105°	6.4	43.4	109.7	154.4	168.4
107.5°	6.4	37.0	100.8	144.2	158.2
110°	5.1	30.6	93.2	134.0	148.0



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**CANDELA DISTRIBUTION (continued):**

	0°	22.5°	45°	67.5°	90°
112.5°	5.1	25.5	84.2	125.1	139.1
115°	5.1	19.1	76.6	114.8	128.9
117.5°	3.8	14.0	67.6	105.9	118.7
120°	3.8	8.9	60.0	95.7	109.7
122.5°	3.8	5.1	52.3	86.8	98.3
125°	2.6	2.6	43.4	77.8	89.3
127.5°	2.6	1.3	35.7	67.6	79.1
130°	2.6	1.3	28.1	58.7	68.9
132.5°	2.6	1.3	20.4	49.8	60.0
135°	1.3	1.3	14.0	40.8	51.0
137.5°	1.3	1.3	7.7	31.9	40.8
140°	1.3	0.0	2.6	23.0	30.6
142.5°	1.3	0.0	0.0	15.3	21.7
145°	0.0	0.0	0.0	7.7	14.0
147.5°	0.0	0.0	0.0	1.3	5.1
150°	0.0	0.0	0.0	0.0	0.0
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)