

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: P243120

Luminaire Tested: **S122DR-H290D835-X4F0-XX-UDD-F-W**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P243120  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1802-639-48)  
Test Lab: INNOVATION CENTER  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: NEO-RAY  
Catalog Number: S122DR-H290D835-X4F0-XX-UDD-F-W  
Description: DEFINE 2 DIRECT RECESSED WITH SATIN FLUSH DIFFUSER.  
HIGH PERFORMANCE LIGHT ENGINE  
Light Source: (184) 3500K CCT, 80 CRI LEDS  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 1155.8 lumens  
Efficiency: N/A  
Efficacy: 103.2 lumens/watt  
Spacing Criteria (0/90/45): 1.2 / 1.16 / 1.29  
Luminous Opening: Rectangular (W 0.15' x L: 3.88' x H: 0')  
CIE Type: Direct

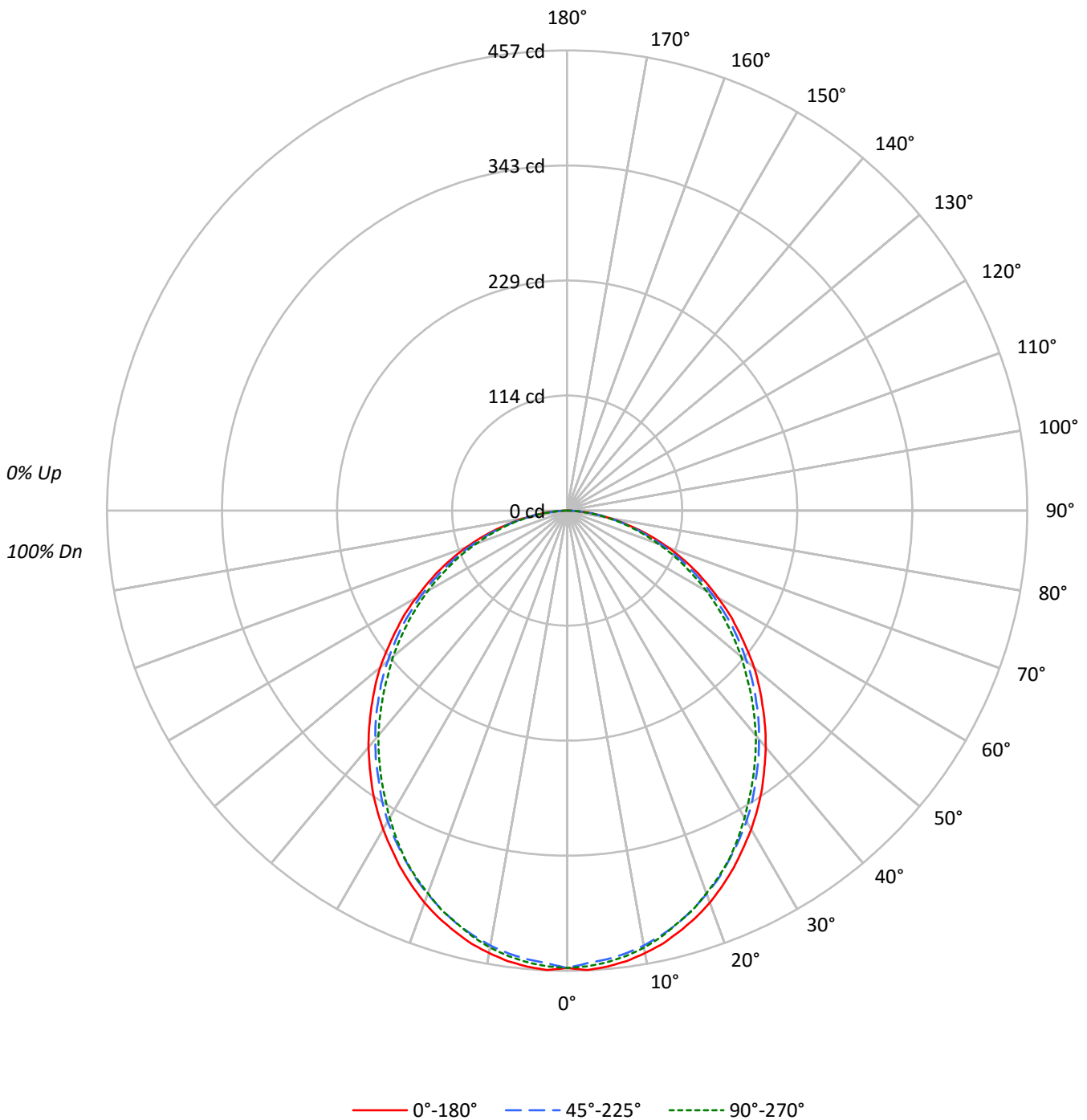
Input Watts (W): 11.2  
Input Voltage (V): 120  
Input Current (A<sub>in</sub>): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100
1	109	104	100	96	106	102	98	95	98	95	92	94	91	89	90	88	86	84
2	99	91	85	79	97	89	83	78	86	81	76	83	78	74	80	76	73	71
3	91	80	72	66	88	79	71	65	76	69	64	73	68	63	71	66	62	60
4	83	71	63	56	81	70	62	56	68	61	55	65	59	54	63	58	54	51
5	77	64	55	49	75	63	55	48	61	53	48	59	52	47	57	51	47	45
6	71	58	49	43	69	57	48	42	55	48	42	53	47	42	52	46	41	39
7	66	52	44	38	64	52	43	38	50	43	37	49	42	37	47	41	37	35
8	61	48	40	34	60	47	39	34	46	39	33	45	38	33	44	38	33	31
9	57	44	36	30	56	43	36	30	42	35	30	41	35	30	40	34	30	28
10	54	41	33	28	53	40	33	28	39	32	28	38	32	27	37	32	27	26

**AVERAGE LUMINANCE (cd/sqm):**

	0°	45°	90°
0°	8651	8651	8651
5°	8692	8556	8612
10°	8632	8485	8526
15°	8527	8371	8363
20°	8400	8213	8197
25°	8226	8024	8016
30°	8039	7837	7753
35°	7846	7592	7494
40°	7631	7370	7256
45°	7397	7138	6958
50°	7183	6899	6685
55°	6881	6645	6396
60°	6587	6331	6091
65°	6301	5999	5738
70°	5920	5619	5341
75°	5394	5174	4931
80°	4684	4541	4366
85°	4021	3562	3300



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	42.8	3.7
10°-20°	120.4	10.4
20°-30°	177.0	15.3
30°-40°	205.5	17.8
40°-50°	205.2	17.8
50°-60°	178.7	15.5
60°-70°	132.2	11.4
70°-80°	74.5	6.4
80°-90°	19.4	1.7
90°-100°	0.0	0.0
100°-110°	0.0	0.0
110°-120°	0.0	0.0
120°-130°	0.0	0.0
130°-140°	0.0	0.0
140°-150°	0.0	0.0
150°-160°	0.0	0.0
160°-170°	0.0	0.0
170°-180°	0.0	0.0
0°-30°	340.1	29.4
0°-40°	545.7	47.2
0°-60°	929.6	80.4
0°-90°	1155.8	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1155.8	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	454	454	454	454	454	
5°	455	452	448	451	450	43
15°	432	430	424	426	424	122
25°	391	388	382	381	381	180
35°	337	334	326	324	322	211
45°	275	272	265	261	258	212
55°	207	206	200	195	193	186
65°	140	138	133	129	127	138
75°	73	73	70	68	67	78
85°	18	18	16	16	15	21
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	454.2	454.2	454.2	454.2	454.2
2.5°	456.7	454.6	450.0	453.8	453.0
5°	454.6	452.5	447.5	451.3	450.4
7.5°	451.3	449.2	443.7	447.5	446.3
10°	446.3	443.7	438.7	441.2	440.8
12.5°	440.4	437.9	432.0	434.1	433.3
15°	432.4	430.4	424.5	426.2	424.1
17.5°	424.1	420.7	415.3	417.0	415.7
20°	414.4	411.1	405.2	406.1	404.4
22.5°	403.1	399.8	394.4	394.4	393.5
25°	391.4	388.1	381.8	381.4	381.4
27.5°	378.4	375.5	369.2	368.0	367.1
30°	365.5	363.0	356.3	353.7	352.5
32.5°	351.7	348.3	342.0	339.1	337.0
35°	337.4	333.6	326.5	323.6	322.3
37.5°	321.9	318.2	311.9	309.4	306.9
40°	306.9	303.5	296.4	292.6	291.8
42.5°	290.9	287.6	281.3	277.1	274.6
45°	274.6	271.7	265.0	260.8	258.3
47.5°	258.7	255.4	249.5	244.5	241.1
50°	242.4	239.0	232.8	226.9	225.6
52.5°	224.4	222.3	216.0	210.6	208.9
55°	207.2	205.5	200.1	194.7	192.6
57.5°	190.9	188.8	182.5	178.3	175.8
60°	172.9	171.6	166.2	161.6	159.9
62.5°	156.1	154.5	149.9	145.3	143.2
65°	139.8	137.7	133.1	128.9	127.3
67.5°	123.1	121.0	117.2	113.9	112.2
70°	106.3	104.7	100.9	98.0	95.9
72.5°	90.0	88.3	85.0	82.1	81.6
75°	73.3	72.8	70.3	67.8	67.0
77.5°	57.8	57.4	55.7	54.4	53.6
80°	42.7	42.7	41.4	40.2	39.8
82.5°	29.3	29.7	28.5	27.6	27.6
85°	18.4	17.6	16.3	15.5	15.1
87.5°	7.5	6.3	5.9	4.6	4.2
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)