

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: P243115

Luminaire Tested: **S122DR-H290D830-X4F0-XX-UDD-F-W**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P243115  
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-H290D830-X4F0-XX-UDD-F-W  
Description: DEFINE 2 DIRECT RECESSED WITH SATIN FLUSH DIFFUSER.  
HIGH PERFORMANCE LIGHT ENGINE  
Light Source: (184) 3000K CCT, 80 CRI LEDS  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 1089.4 lumens  
Efficiency: N/A  
Efficacy: 97.3 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

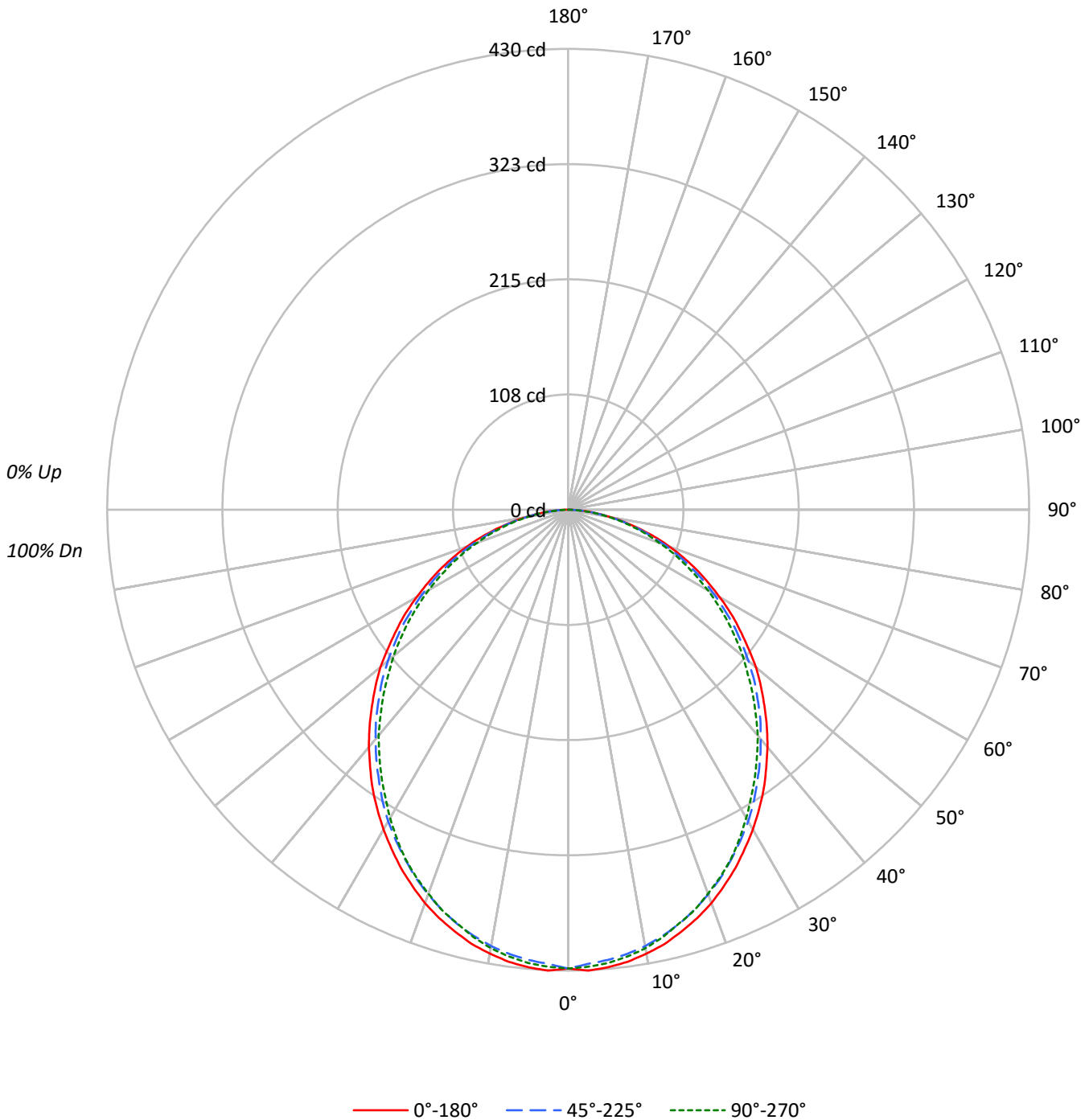
Input Watts (W): 11.2  
Input Voltage (V): 120  
Input Current (A<sub>in</sub>): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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°	8154	8154	8154
5°	8193	8065	8119
10°	8135	7998	8036
15°	8038	7890	7882
20°	7918	7743	7727
25°	7753	7564	7556
30°	7577	7386	7307
35°	7394	7157	7064
40°	7191	6947	6838
45°	6971	6729	6559
50°	6771	6501	6303
55°	6486	6263	6027
60°	6210	5966	5741
65°	5940	5656	5408
70°	5580	5296	5035
75°	5085	4879	4644
80°	4410	4289	4113
85°	3803	3366	3103



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	40.3	3.7
10°-20°	113.5	10.4
20°-30°	166.8	15.3
30°-40°	193.7	17.8
40°-50°	193.5	17.8
50°-60°	168.5	15.5
60°-70°	124.6	11.4
70°-80°	70.2	6.4
80°-90°	18.3	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°	320.6	29.4
0°-40°	514.3	47.2
0°-60°	876.2	80.4
0°-90°	1089.4	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1089.4	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	428	428	428	428	428	
5°	428	426	422	425	425	41
15°	408	406	400	402	400	115
25°	369	366	360	360	360	170
35°	318	314	308	305	304	199
45°	259	256	250	246	244	200
55°	195	194	189	184	182	175
65°	132	130	126	122	120	130
75°	69	69	66	64	63	73
85°	17	17	15	15	14	20
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	428.1	428.1	428.1	428.1	428.1
2.5°	430.5	428.5	424.2	427.7	426.9
5°	428.5	426.5	421.8	425.4	424.6
7.5°	425.4	423.4	418.3	421.8	420.6
10°	420.6	418.3	413.5	415.9	415.5
12.5°	415.1	412.7	407.2	409.2	408.4
15°	407.6	405.6	400.1	401.7	399.7
17.5°	399.7	396.6	391.4	393.0	391.8
20°	390.6	387.5	382.0	382.7	381.2
22.5°	380.0	376.8	371.7	371.7	370.9
25°	368.9	365.8	359.9	359.5	359.5
27.5°	356.7	353.9	348.0	346.8	346.0
30°	344.5	342.1	335.8	333.4	332.2
32.5°	331.4	328.3	322.4	319.6	317.6
35°	318.0	314.5	307.8	305.0	303.8
37.5°	303.4	299.9	294.0	291.6	289.2
40°	289.2	286.1	279.4	275.8	275.0
42.5°	274.2	271.1	265.2	261.2	258.8
45°	258.8	256.1	249.8	245.8	243.5
47.5°	243.8	240.7	235.2	230.4	227.3
50°	228.5	225.3	219.4	213.9	212.7
52.5°	211.5	209.5	203.6	198.5	196.9
55°	195.3	193.7	188.6	183.5	181.5
57.5°	179.9	178.0	172.0	168.1	165.7
60°	163.0	161.8	156.6	152.3	150.7
62.5°	147.2	145.6	141.3	136.9	134.9
65°	131.8	129.8	125.5	121.5	120.0
67.5°	116.0	114.0	110.5	107.3	105.7
70°	100.2	98.6	95.1	92.3	90.4
72.5°	84.8	83.3	80.1	77.3	76.9
75°	69.1	68.7	66.3	63.9	63.1
77.5°	54.5	54.1	52.5	51.3	50.5
80°	40.2	40.2	39.1	37.9	37.5
82.5°	27.6	28.0	26.8	26.0	26.0
85°	17.4	16.6	15.4	14.6	14.2
87.5°	7.1	5.9	5.5	4.3	3.9
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)