

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: P242354

Luminaire Tested: **S122RDR-S485D927-X4F0-XX-UDD-F-W**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P242354  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1802-639-24)  
Test Lab: INNOVATION CENTER  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: NEO-RAY  
Catalog Number: S122RDR-S485D927-X4F0-XX-UDD-F-W  
Description: DEFINE 2 REGRESSED DIRECT RECESSED WITH SATIN FLUSH DIFFUSER  
STANDARD LIGHT ENGINE  
Light Source: (92) 2700K CCT, 90 CRI LEDS  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 1292.6 lumens  
Efficiency: N/A  
Efficacy: 68.8 lumens/watt  
Spacing Criteria (0/90/45): 1.2 / 0.99 / 1.16  
Luminous Opening: Rectangular (W 0.15' x L: 3.88' x H: 0')  
CIE Type: Direct

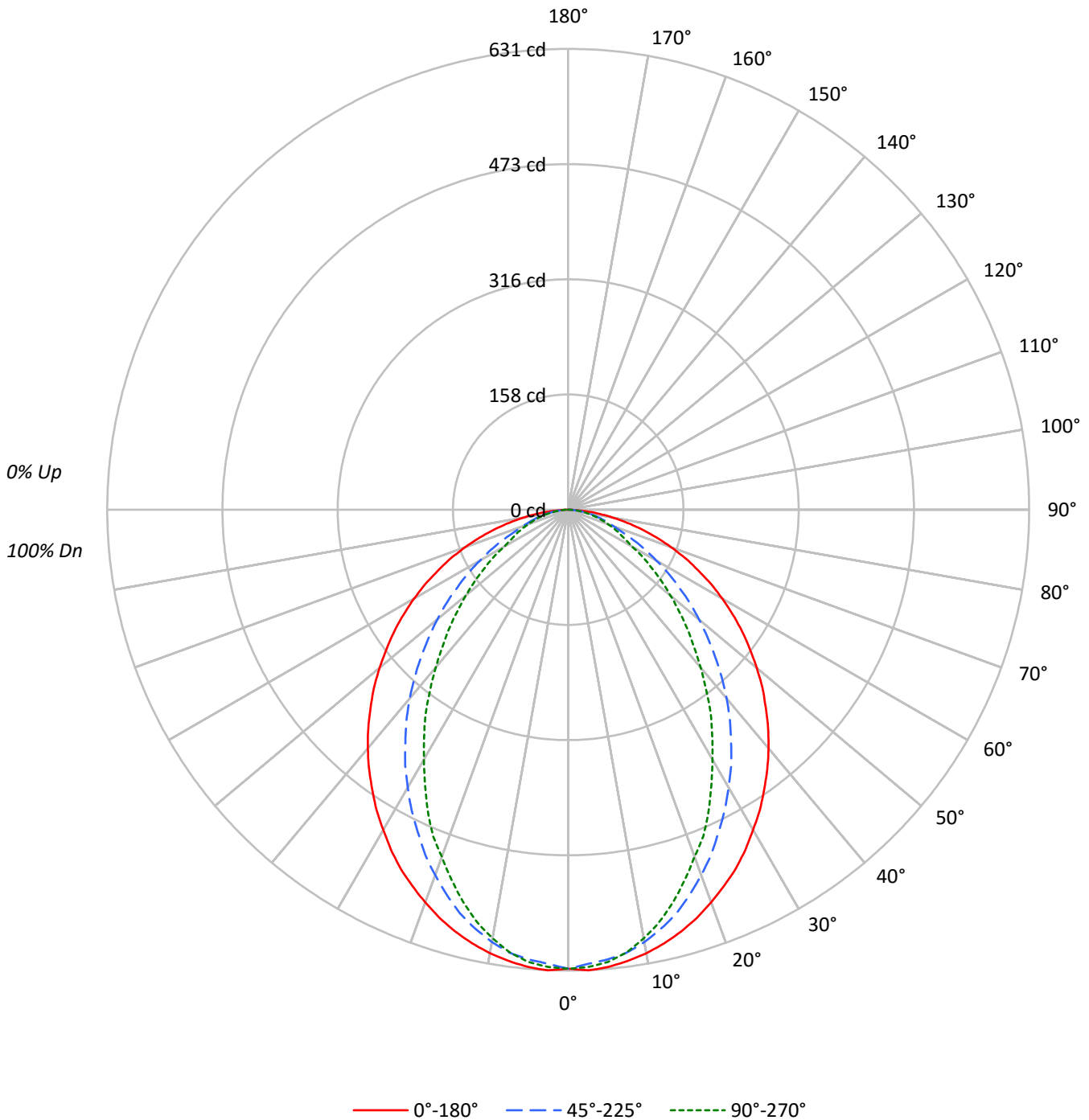
Input Watts (W): 18.8  
Input Voltage (V): 120  
Input Current (A<sub>in</sub>): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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	110	106	102	98	107	103	100	97	99	96	94	95	93	91	92	90	88	86
2	101	94	87	82	98	92	86	81	88	83	79	85	81	78	82	79	76	74
3	93	83	76	70	90	82	75	69	79	73	68	76	71	67	74	69	66	64
4	86	75	66	60	83	73	66	60	71	64	59	69	63	58	66	62	57	55
5	79	67	59	53	77	66	58	52	64	57	52	62	56	51	60	55	51	49
6	74	61	53	47	72	60	52	46	58	51	46	57	50	46	55	50	45	43
7	68	56	47	42	67	55	47	42	53	46	41	52	46	41	51	45	41	39
8	64	51	43	38	62	51	43	37	49	42	37	48	42	37	47	41	37	35
9	60	47	39	34	59	47	39	34	46	39	34	44	38	34	44	38	34	32
10	56	44	36	31	55	43	36	31	42	36	31	41	35	31	41	35	31	29

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

	0°	45°	90°
0°	11971	11971	11971
5°	12017	11822	11887
10°	11926	11628	11529
15°	11788	11284	10958
20°	11599	10792	10251
25°	11404	10233	9563
30°	11134	9658	8683
35°	10873	9034	7908
40°	10607	8387	7014
45°	10296	7661	6206
50°	9977	6928	5411
55°	9654	6140	4646
60°	9272	5311	3855
65°	8843	4462	3511
70°	8331	3676	3230
75°	7705	3349	3017
80°	6801	2995	2742
85°	5354	2360	2360



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	58.9	4.6
10°-20°	161.7	12.5
20°-30°	227.0	17.6
30°-40°	247.5	19.1
40°-50°	227.4	17.6
50°-60°	178.6	13.8
60°-70°	116.3	9.0
70°-80°	59.9	4.6
80°-90°	15.3	1.2
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°	447.7	34.6
0°-40°	695.1	53.8
0°-60°	1101.2	85.2
0°-90°	1292.6	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1292.6	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	628	628	628	628	628	
5°	628	626	618	623	622	60
15°	598	592	572	561	556	168
25°	543	524	487	464	455	250
35°	468	438	388	353	340	293
45°	382	344	284	244	230	295
55°	291	246	185	151	140	260
65°	196	150	99	80	78	195
75°	105	65	46	42	41	111
85°	24	12	11	11	11	29
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	628.5	628.5	628.5	628.5	628.5
2.5°	631.4	628.5	622.3	628.0	626.8
5°	628.5	625.7	618.3	623.4	621.7
7.5°	623.4	620.0	612.0	614.3	611.5
10°	616.6	612.6	601.2	599.5	596.1
12.5°	608.1	602.9	587.6	584.2	577.9
15°	597.8	591.6	572.2	561.4	555.7
17.5°	585.9	576.8	552.9	540.4	531.3
20°	572.2	560.8	532.4	518.2	505.7
22.5°	557.4	544.3	511.4	492.0	483.5
25°	542.6	524.4	486.9	463.6	455.0
27.5°	525.0	505.7	464.1	437.4	424.3
30°	506.2	484.6	439.1	410.1	394.8
32.5°	488.0	461.9	415.2	381.1	366.9
35°	467.6	438.5	388.5	352.7	340.1
37.5°	447.7	416.4	363.5	324.2	310.0
40°	426.6	392.5	337.3	296.9	282.1
42.5°	405.0	368.6	311.1	269.0	254.8
45°	382.2	344.1	284.4	244.0	230.4
47.5°	360.6	320.2	258.8	218.4	205.9
50°	336.7	296.3	233.8	194.5	182.6
52.5°	313.4	270.8	209.9	172.3	161.5
55°	290.7	246.3	184.9	150.7	139.9
57.5°	267.3	221.8	162.7	130.8	121.7
60°	243.4	197.9	139.4	110.3	101.2
62.5°	220.1	174.6	119.4	92.1	87.6
65°	196.2	150.2	99.0	79.6	77.9
67.5°	173.5	127.4	79.6	70.0	68.3
70°	149.6	105.2	66.0	60.3	58.0
72.5°	126.8	84.8	55.2	50.6	49.5
75°	104.7	64.8	45.5	41.5	41.0
77.5°	82.5	46.1	35.8	33.6	32.4
80°	62.0	33.0	27.3	25.0	25.0
82.5°	43.2	22.2	18.8	17.6	17.6
85°	24.5	12.5	10.8	10.8	10.8
87.5°	9.1	4.6	4.6	4.0	4.0
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)