

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: P242383

Luminaire Tested: **S122RDR-S485D940-X4F0-XX-UDD-F-W**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P242383  
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-S485D940-X4F0-XX-UDD-F-W  
Description: DEFINE 2 REGRESSED DIRECT RECESSED WITH SATIN FLUSH DIFFUSER  
STANDARD LIGHT ENGINE  
Light Source: (92) 4000K CCT, 90 CRI LEDS  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

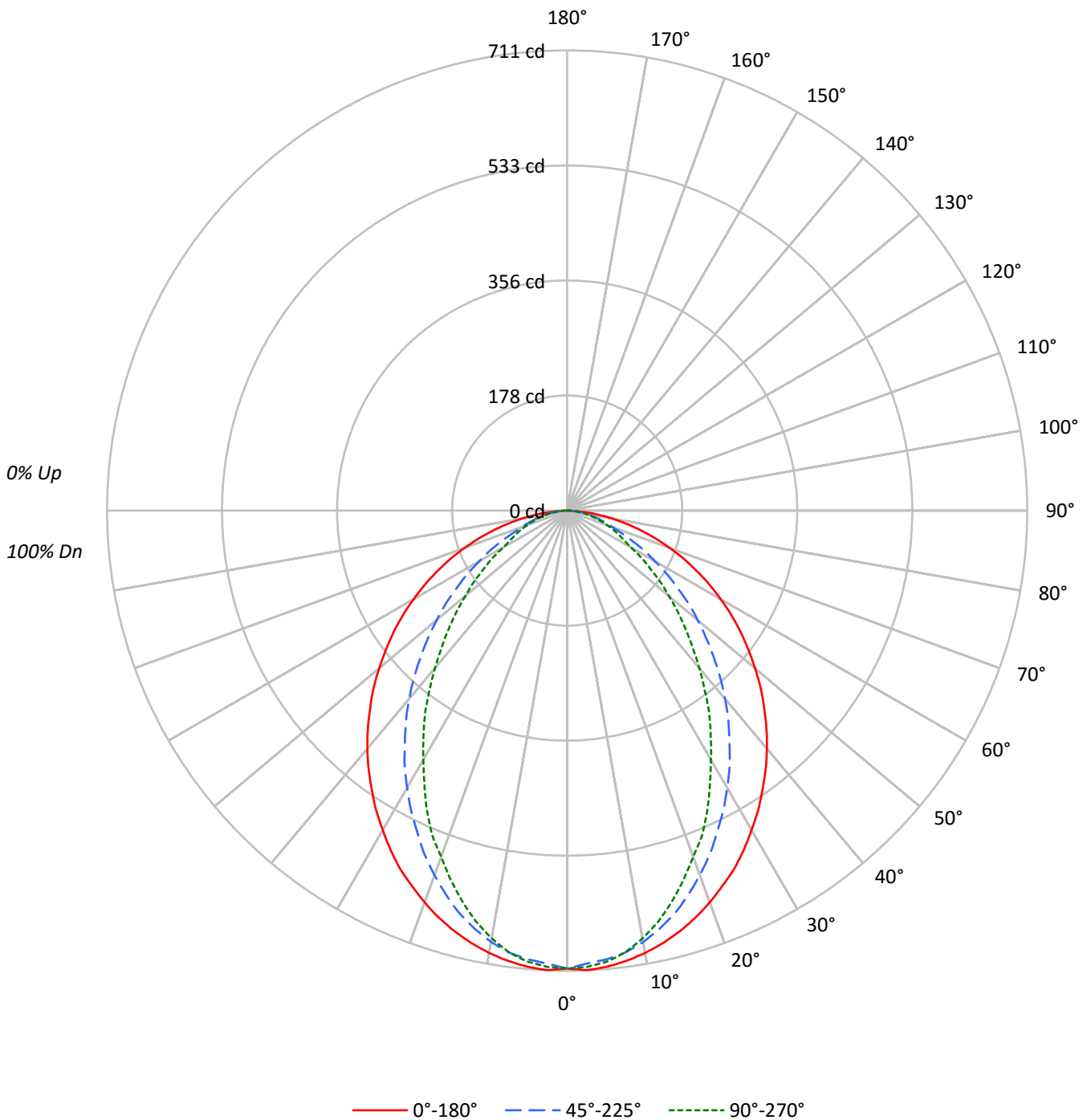
Lumens per Lamp: N/A  
Luminaire Lumens: 1455.1 lumens  
Efficiency: N/A  
Efficacy: 77.4 lumens/watt  
Spacing Criteria (0/90/45): 1.2 / 0.99 / 1.16  
Luminous Opening: Rectangular (W 0.15' x L: 3.88' x H: 0')  
CIE Type: Direct  
  
Input Watts (W): 18.8  
Input Voltage (V): 120  
Input Current (A<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°	13476	13476	13476
5°	13528	13308	13381
10°	13425	13090	12978
15°	13269	12701	12335
20°	13056	12148	11538
25°	12837	11519	10765
30°	12532	10872	9772
35°	12238	10169	8904
40°	11940	9441	7897
45°	11591	8623	6985
50°	11231	7799	6090
55°	10866	6911	5230
60°	10438	5977	4343
65°	9956	5021	3953
70°	9378	4138	3637
75°	8669	3768	3393
80°	7656	3368	3093
85°	6010	2666	2666



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	66.3	4.6
10°-20°	182.0	12.5
20°-30°	255.6	17.6
30°-40°	278.6	19.1
40°-50°	256.0	17.6
50°-60°	201.1	13.8
60°-70°	130.9	9.0
70°-80°	67.4	4.6
80°-90°	17.2	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°	503.9	34.6
0°-40°	782.5	53.8
0°-60°	1239.6	85.2
0°-90°	1455.1	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1455.1	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	708	708	708	708	708	
5°	708	704	696	702	700	67
15°	673	666	644	632	626	190
25°	611	590	548	522	512	281
35°	526	494	437	397	383	329
45°	430	387	320	275	259	332
55°	327	277	208	170	158	292
65°	221	169	111	90	88	219
75°	118	73	51	47	46	125
85°	28	14	12	12	12	33
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	707.5	707.5	707.5	707.5	707.5
2.5°	710.7	707.5	700.5	706.9	705.6
5°	707.5	704.3	696.0	701.7	699.8
7.5°	701.7	697.9	688.9	691.5	688.3
10°	694.1	689.6	676.8	674.8	671.0
12.5°	684.4	678.7	661.4	657.6	650.5
15°	672.9	665.9	644.1	631.9	625.5
17.5°	659.5	649.2	622.3	608.3	598.0
20°	644.1	631.3	599.3	583.3	569.2
22.5°	627.5	612.7	575.6	553.8	544.2
25°	610.8	590.3	548.1	521.8	512.2
27.5°	591.0	569.2	522.5	492.4	477.6
30°	569.8	545.5	494.3	461.6	444.3
32.5°	549.4	519.9	467.4	429.0	413.0
35°	526.3	493.6	437.3	397.0	382.9
37.5°	503.9	468.7	409.1	365.0	348.9
40°	480.2	441.8	379.7	334.2	317.6
42.5°	455.9	414.9	350.2	302.8	286.8
45°	430.3	387.4	320.1	274.7	259.3
47.5°	405.9	360.5	291.3	245.9	231.8
50°	379.0	333.6	263.2	219.0	205.5
52.5°	352.8	304.8	236.3	194.0	181.8
55°	327.2	277.2	208.1	169.7	157.5
57.5°	300.9	249.7	183.1	147.3	137.0
60°	274.0	222.8	156.9	124.2	114.0
62.5°	247.8	196.6	134.5	103.7	98.6
65°	220.9	169.0	111.4	89.6	87.7
67.5°	195.3	143.4	89.6	78.8	76.8
70°	168.4	118.5	74.3	67.9	65.3
72.5°	142.8	95.4	62.1	57.0	55.7
75°	117.8	73.0	51.2	46.7	46.1
77.5°	92.8	51.9	40.3	37.8	36.5
80°	69.8	37.1	30.7	28.2	28.2
82.5°	48.7	25.0	21.1	19.8	19.8
85°	27.5	14.1	12.2	12.2	12.2
87.5°	10.2	5.1	5.1	4.5	4.5
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)