

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: P242256

Luminaire Tested: **S122DR-S485D830-X4F0-XX-UDD-F-W**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P242256  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1802-639-10)  
Test Lab: INNOVATION CENTER  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: NEO-RAY  
Catalog Number: S122DR-S485D830-X4F0-XX-UDD-F-W  
Description: DEFINE 2 DIRECT RECESSED WITH SATIN FLUSH DIFFUSER  
STANDARD LIGHT ENGINE  
Light Source: (92) 3000K CCT, 80 CRI LEDS  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 1790.7 lumens  
Efficiency: N/A  
Efficacy: 95.2 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

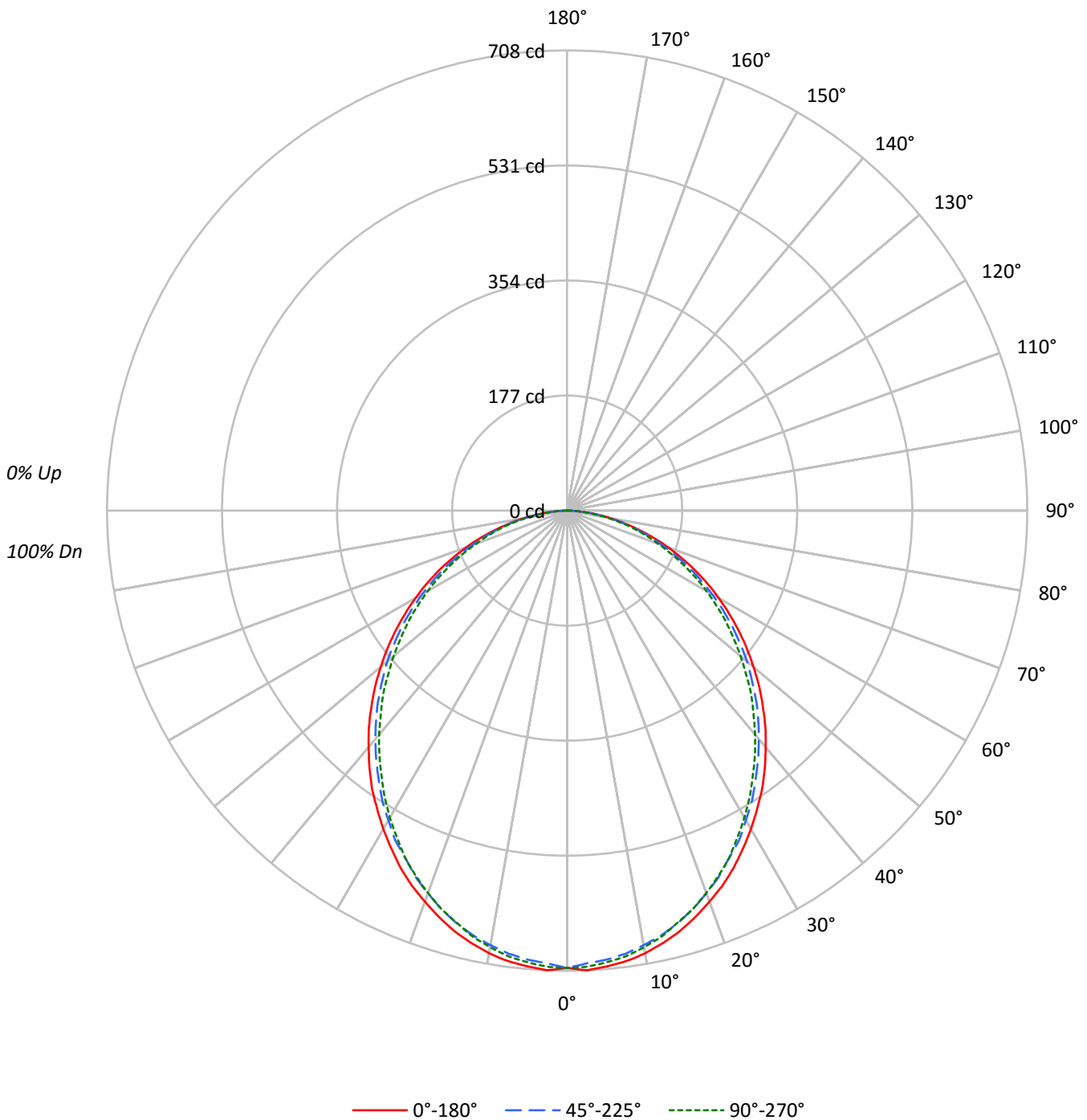
Input Watts (W): 18.8  
Input Voltage (V): 120  
Input Current (A<sub>in</sub>): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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

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

	0°	45°	90°
0°	13406	13406	13406
5°	13457	13264	13342
10°	13379	13129	13195
15°	13212	12958	12946
20°	12977	12703	12689
25°	12745	12389	12389
30°	12444	12101	11998
35°	12164	11754	11582
40°	11813	11411	11192
45°	11467	11066	10791
50°	11092	10709	10327
55°	10697	10295	9913
60°	10263	9798	9436
65°	9789	9303	8874
70°	9195	8705	8293
75°	8368	8022	7823
80°	7426	7196	6834
85°	6054	5770	5180



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	66.2	3.7
10°-20°	186.4	10.4
20°-30°	273.9	15.3
30°-40°	318.1	17.8
40°-50°	317.7	17.7
50°-60°	277.0	15.5
60°-70°	204.8	11.4
70°-80°	115.9	6.5
80°-90°	30.6	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°	526.5	29.4
0°-40°	844.7	47.2
0°-60°	1439.4	80.4
0°-90°	1790.7	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1790.7	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	704	704	704	704	704	
5°	704	701	694	699	698	67
15°	670	666	657	660	656	189
25°	606	601	590	591	590	279
35°	523	516	506	502	498	327
45°	426	421	411	403	401	329
55°	322	318	310	302	298	288
65°	217	213	206	200	197	215
75°	114	112	109	105	106	121
85°	28	27	26	24	24	33
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	703.8	703.8	703.8	703.8	703.8
2.5°	707.9	704.5	697.1	703.8	702.5
5°	703.8	701.1	693.7	699.1	697.8
7.5°	699.1	695.0	687.6	693.0	691.7
10°	691.7	686.9	678.8	684.2	682.2
12.5°	681.5	677.4	669.3	672.7	671.4
15°	670.0	665.9	657.1	659.9	656.5
17.5°	655.8	651.7	642.9	646.3	642.9
20°	640.2	636.2	626.7	628.7	626.0
22.5°	624.7	618.6	609.8	609.8	608.4
25°	606.4	601.0	589.5	590.8	589.5
27.5°	586.1	581.3	572.5	570.5	567.1
30°	565.8	560.4	550.2	548.2	545.5
32.5°	544.1	540.1	529.2	525.2	522.5
35°	523.1	516.4	505.5	501.5	498.1
37.5°	499.5	493.4	482.5	477.8	474.4
40°	475.1	469.7	458.9	452.8	450.1
42.5°	451.4	446.0	435.2	428.4	424.3
45°	425.7	421.0	410.8	403.4	400.6
47.5°	400.6	395.9	385.1	377.6	373.6
50°	374.3	370.9	361.4	351.9	348.5
52.5°	348.5	343.8	335.0	327.6	322.8
55°	322.1	318.1	310.0	301.8	298.5
57.5°	295.7	292.4	283.6	275.4	272.7
60°	269.4	266.6	257.2	249.7	247.7
62.5°	243.6	238.9	232.1	225.4	222.7
65°	217.2	213.2	206.4	200.3	196.9
67.5°	190.2	186.8	180.7	176.0	173.3
70°	165.1	162.4	156.3	151.6	148.9
72.5°	139.4	136.7	133.3	128.6	126.6
75°	113.7	112.3	109.0	104.9	106.3
77.5°	90.7	88.0	86.6	84.6	82.6
80°	67.7	67.0	65.6	63.6	62.3
82.5°	46.0	46.0	45.3	42.6	42.6
85°	27.7	27.1	26.4	24.4	23.7
87.5°	12.2	10.8	9.5	7.4	6.8
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)