

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: P242957

Luminaire Tested: **S121DR-H305D930-X4F0-XX-UDD-F-W**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P242957  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1802-639-47)  
Test Lab: INNOVATION CENTER  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: NEO-RAY  
Catalog Number: S121DR-H305D930-X4F0-XX-UDD-F-W  
Description: DEFINE 1 DIRECT RECESSED WITH SATIN FLUSH DIFFUSER.  
HIGH PERFORMANCE LIGHT ENGINE  
Light Source: (184) 3000K CCT, 90 CRI LEDS  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 934.3 lumens  
Efficiency: N/A  
Efficacy: 83.4 lumens/watt  
Spacing Criteria (0/90/45): 1.2 / 1.16 / 1.29  
Luminous Opening: Rectangular (W 0.09' x L: 3.88' x H: 0')  
CIE Type: Direct

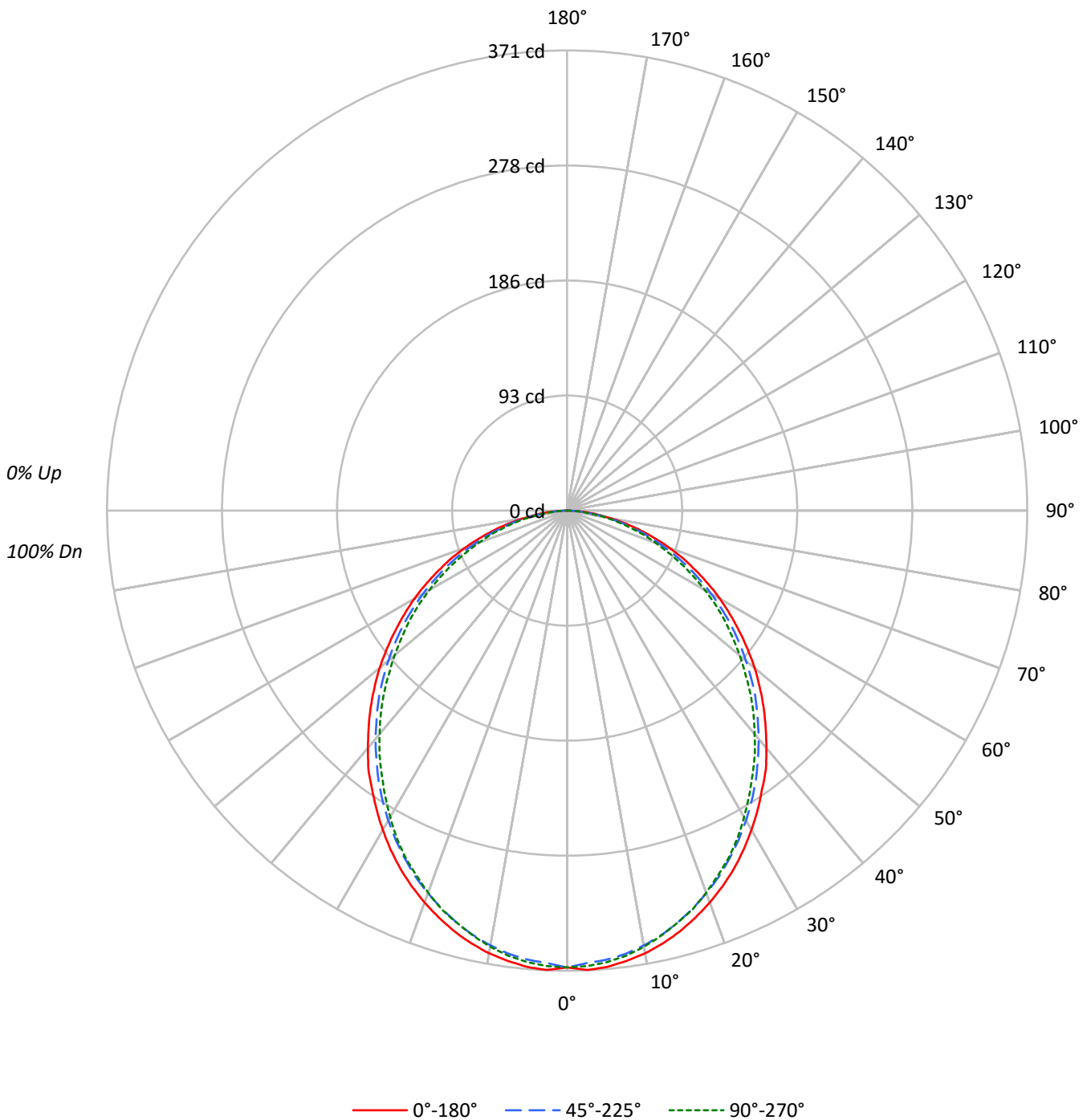
Input Watts (W): 11.2  
Input Voltage (V): 120  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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	97	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	75	80	76	73	71
3	91	81	73	66	88	79	72	66	76	70	64	73	68	63	71	66	62	60
4	83	72	63	56	81	70	62	56	68	61	55	65	59	54	63	58	54	52
5	77	64	55	49	75	63	55	48	61	54	48	59	52	47	57	51	47	45
6	71	58	49	43	69	57	49	42	55	48	42	53	47	42	52	46	41	39
7	66	53	44	38	64	52	44	38	50	43	37	49	42	37	47	41	37	35
8	61	48	40	34	60	47	39	34	46	39	34	45	38	33	44	38	33	31
9	57	44	36	31	56	44	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°	10913	10913	10913
5°	10984	10812	10871
10°	10906	10711	10741
15°	10773	10552	10552
20°	10601	10352	10333
25°	10409	10122	10086
30°	10172	9867	9761
35°	9915	9593	9419
40°	9662	9295	9097
45°	9382	9009	8753
50°	9095	8671	8371
55°	8746	8338	8022
60°	8433	7947	7603
65°	8014	7516	7109
70°	7598	6974	6532
75°	6960	6331	5942
80°	6057	5597	5187
85°	5235	4284	3604



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	34.7	3.7
10°-20°	97.6	10.5
20°-30°	143.6	15.4
30°-40°	166.6	17.8
40°-50°	166.2	17.8
50°-60°	144.6	15.5
60°-70°	106.5	11.4
70°-80°	59.3	6.3
80°-90°	15.2	1.6
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°	275.9	29.5
0°-40°	442.5	47.4
0°-60°	753.3	80.6
0°-90°	934.3	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	934.3	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	368	368	368	368	368	
5°	369	367	364	366	366	35
15°	351	349	344	345	344	99
25°	318	315	310	310	308	147
35°	274	271	265	262	260	172
45°	224	220	215	211	209	173
55°	169	166	161	157	155	152
65°	114	112	107	103	101	114
75°	61	58	55	53	52	64
85°	15	14	13	11	11	18
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	368.3	368.3	368.3	368.3	368.3
2.5°	370.7	368.6	365.2	368.3	367.6
5°	369.3	367.2	363.5	366.2	365.5
7.5°	366.2	364.5	360.4	362.8	362.1
10°	362.5	360.4	356.0	358.0	357.0
12.5°	357.4	355.6	350.5	352.2	350.9
15°	351.2	349.2	344.0	345.4	344.0
17.5°	344.0	342.0	336.5	337.6	336.9
20°	336.2	333.5	328.3	329.0	327.7
22.5°	327.7	324.6	319.5	319.5	318.1
25°	318.4	314.7	309.6	309.6	308.5
27.5°	308.2	304.8	299.3	298.6	297.6
30°	297.3	293.9	288.4	287.0	285.3
32.5°	286.0	282.3	277.1	274.8	273.0
35°	274.1	270.7	265.2	262.1	260.4
37.5°	263.2	258.4	252.6	249.8	248.5
40°	249.8	245.7	240.3	236.5	235.2
42.5°	236.9	233.1	227.3	223.6	222.5
45°	223.9	220.1	215.0	210.6	208.9
47.5°	210.6	206.8	201.7	197.3	194.9
50°	197.3	193.5	188.1	183.6	181.6
52.5°	183.3	180.6	174.8	170.7	167.9
55°	169.3	166.2	161.4	157.0	155.3
57.5°	155.6	152.9	147.8	143.0	142.0
60°	142.3	139.6	134.1	130.0	128.3
62.5°	128.3	125.6	120.5	116.4	114.7
65°	114.3	111.9	107.2	102.7	101.4
67.5°	101.4	98.3	93.9	89.8	88.1
70°	87.7	84.3	80.5	77.1	75.4
72.5°	74.1	71.3	68.3	64.8	64.2
75°	60.8	58.0	55.3	52.9	51.9
77.5°	48.1	46.1	44.0	41.6	41.0
80°	35.5	34.1	32.8	31.1	30.4
82.5°	24.9	23.9	21.8	20.5	19.8
85°	15.4	14.3	12.6	10.9	10.6
87.5°	7.2	5.8	4.4	3.8	3.4
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)