

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: P243065

Luminaire Tested: **S121RDR-H305D935-X4F0-XX-UDD-F-W**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P243065  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1802-639-62)  
Test Lab: INNOVATION CENTER  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: NEO-RAY  
Catalog Number: S121RDR-H305D935-X4F0-XX-UDD-F-W  
Description: DEFINE 1 REGRESSED DIRECT RECESSED WITH SATIN FLUSH DIFFUSER.  
HIGH PERFORMANCE LIGHT ENGINE  
Light Source: (184) 3500K CCT, 90 CRI LEDS  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 791.0 lumens  
Efficiency: N/A  
Efficacy: 70.6 lumens/watt  
Spacing Criteria (0/90/45): 1.21 / 0.92 / 1.09  
Luminous Opening: Rectangular (W 0.09' x L: 3.88' x H: 0')  
CIE Type: Direct

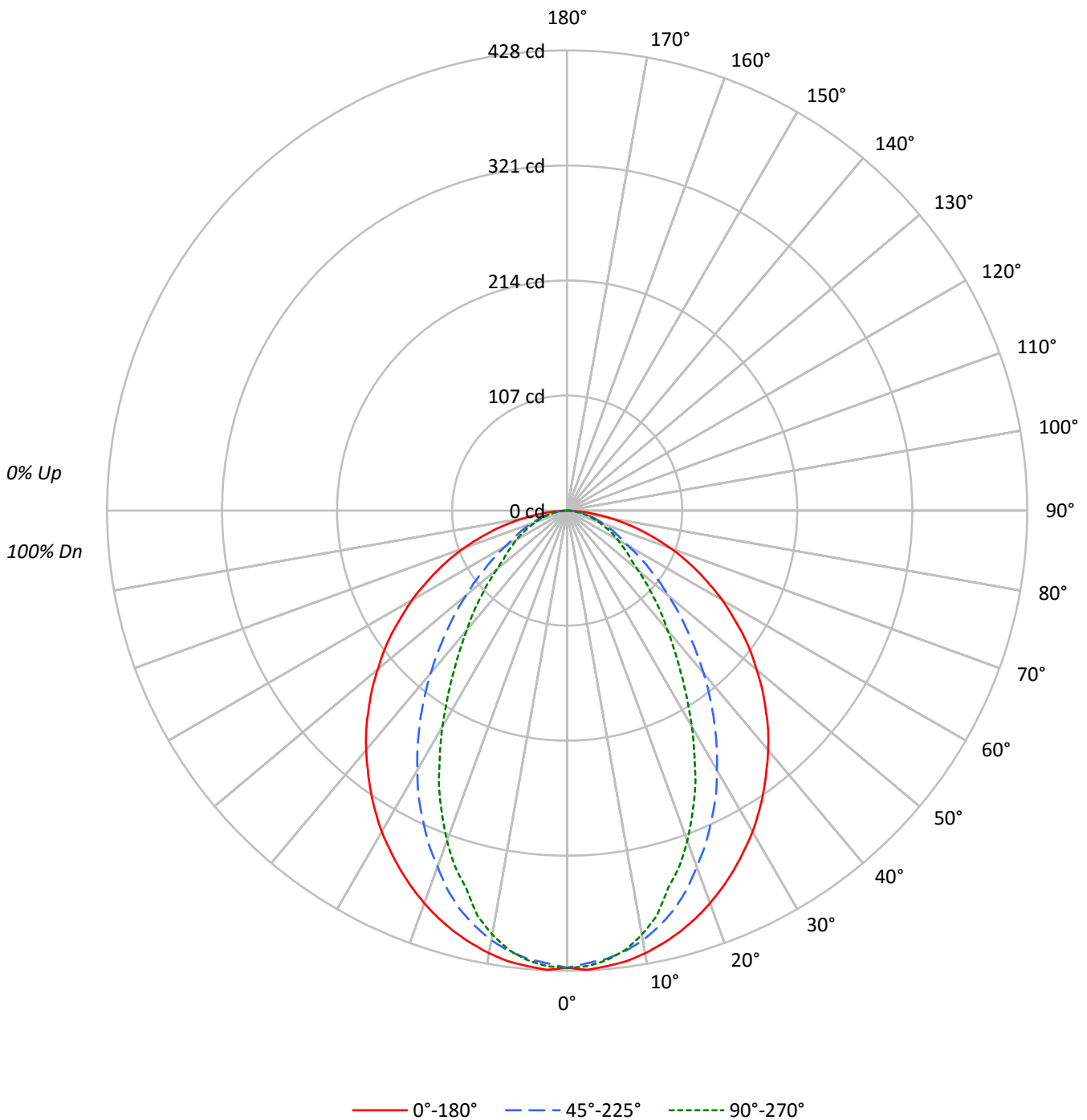
Input Watts (W): 11.2  
Input Voltage (V): 120  
Input Current (A<sub>in</sub>): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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	110	106	102	99	108	104	100	97	100	97	94	96	94	91	92	90	89					87				
2	102	94	88	83	99	92	87	82	89	84	80	86	82	79	83	80	77					75				
3	94	84	77	71	91	83	76	71	80	74	69	77	72	68	75	71	67					65				
4	87	76	68	62	84	74	67	61	72	66	61	70	64	60	68	63	59					57				
5	80	69	60	54	78	67	60	54	65	59	54	64	58	53	62	57	52					50				
6	75	62	54	48	73	62	54	48	60	53	48	58	52	47	57	51	47					45				
7	70	57	49	43	68	56	49	43	55	48	43	54	47	43	52	47	42					41				
8	65	53	45	39	64	52	44	39	51	44	39	50	43	39	48	43	39					37				
9	61	49	41	36	60	48	41	36	47	40	36	46	40	35	45	39	35					34				
10	58	45	38	33	56	45	38	33	44	37	33	43	37	33	42	36	32					31				

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

	0°	45°	90°
0°	12602	12602	12602
5°	12650	12447	12489
10°	12579	12212	12050
15°	12439	11785	11144
20°	12253	11115	10308
25°	12031	10380	9226
30°	11800	9532	7941
35°	11524	8620	6674
40°	11252	7639	5620
45°	10937	6629	4756
50°	10602	5651	3955
55°	10280	4768	3518
60°	9890	3864	3224
65°	9402	3463	2959
70°	8897	3119	2720
75°	8128	2805	2473
80°	6945	2457	2218
85°	5405	2074	1836



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	39.8	5.0
10°-20°	108.2	13.7
20°-30°	147.7	18.7
30°-40°	153.1	19.4
40°-50°	133.6	16.9
50°-60°	100.5	12.7
60°-70°	65.9	8.3
70°-80°	33.6	4.2
80°-90°	8.5	1.1
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°	295.7	37.4
0°-40°	448.8	56.7
0°-60°	682.9	86.3
0°-90°	791.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	791.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	425	425	425	425	425	
5°	425	423	418	421	420	40
15°	406	400	384	373	363	114
25°	368	353	318	291	282	170
35°	319	291	238	198	184	199
45°	261	223	158	123	114	202
55°	199	151	92	70	68	178
65°	134	84	49	44	42	133
75°	71	32	24	22	22	75
85°	16	6	6	5	5	19
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	425.3	425.3	425.3	425.3	425.3
2.5°	427.5	425.7	421.4	425.0	424.2
5°	425.3	423.2	418.5	421.0	419.9
7.5°	422.8	419.9	413.4	414.5	412.3
10°	418.1	414.5	405.9	403.7	400.5
12.5°	412.3	408.4	395.8	390.7	385.7
15°	405.5	399.7	384.2	373.4	363.3
17.5°	397.6	390.4	369.8	354.7	347.1
20°	388.6	379.2	352.5	334.9	326.9
22.5°	378.8	366.9	336.3	313.9	304.6
25°	368.0	352.9	317.5	290.9	282.2
27.5°	356.5	339.2	299.5	268.9	256.3
30°	344.9	323.3	278.6	244.4	232.1
32.5°	332.0	307.5	258.8	221.0	207.3
35°	318.6	291.2	238.3	198.2	184.5
37.5°	304.6	275.0	217.7	177.3	164.0
40°	290.9	257.4	197.5	157.2	145.3
42.5°	276.8	239.7	177.3	139.5	129.4
45°	261.0	223.1	158.2	122.9	113.5
47.5°	246.2	205.1	140.9	108.1	99.5
50°	230.0	187.4	122.6	94.4	85.8
52.5°	214.8	169.4	107.4	80.0	74.6
55°	199.0	151.4	92.3	69.9	68.1
57.5°	182.0	133.7	78.9	62.7	60.6
60°	166.9	116.8	65.2	56.2	54.4
62.5°	149.9	99.8	56.6	50.1	48.3
65°	134.1	83.6	49.4	43.6	42.2
67.5°	118.2	68.8	42.5	37.8	36.4
70°	102.7	54.8	36.0	32.4	31.4
72.5°	85.8	41.5	30.3	27.4	26.7
75°	71.0	32.4	24.5	22.3	21.6
77.5°	55.5	24.5	19.1	17.7	17.3
80°	40.7	17.7	14.4	13.3	13.0
82.5°	27.8	11.9	10.1	9.4	9.0
85°	15.9	6.5	6.1	5.4	5.4
87.5°	6.1	2.5	2.2	2.2	2.2
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)