

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: P243464

Luminaire Tested: **S124DR-H350D835-X4F0-XX-UDD-F-W**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P243464  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1802-639-84)  
Test Lab: INNOVATION CENTER  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: NEO-RAY  
Catalog Number: S124DR-H350D835-X4F0-XX-UDD-F-W  
Description: DEFINE 4 DIRECT RECESSED WITH SATIN FLUSH DIFFUSER.  
HIGH PERFORMANCE LIGHT ENGINE  
Light Source: (184) 3500K CCT, 80 CRI LEDS  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 1418.6 lumens  
Efficiency: N/A  
Efficacy: 126.7 lumens/watt  
Spacing Criteria (0/90/45): 1.2 / 1.17 / 1.3  
Luminous Opening: Rectangular (W 0.31' x L: 3.88' x H: 0')  
CIE Type: Direct

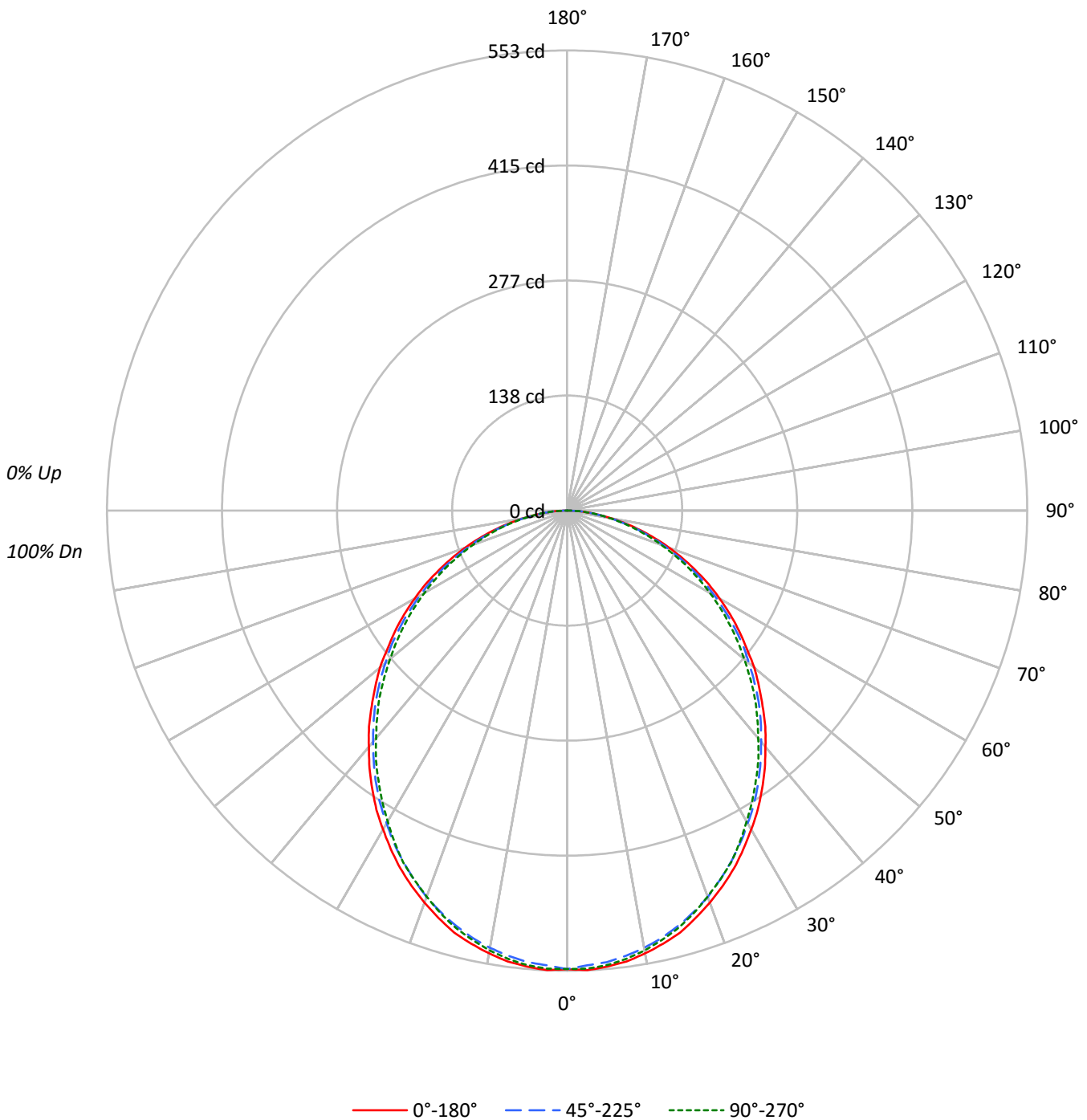
Input Watts (W): 11.2  
Input Voltage (V): 120  
Input Current (A<sub>in</sub>): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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	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	96	106	102	98	95	98	95	92	94	91	89	90	88	86	84
2	99	91	84	79	97	89	83	78	86	80	76	82	78	74	79	76	73	70
3	91	80	72	66	88	79	71	65	76	69	64	73	67	63	70	66	62	60
4	83	71	63	56	81	70	62	56	67	60	55	65	59	54	63	58	53	51
5	77	64	55	48	74	63	54	48	61	53	48	59	52	47	57	51	47	44
6	71	58	49	42	69	57	48	42	55	47	42	53	46	41	52	46	41	39
7	66	52	44	38	64	51	43	37	50	43	37	48	42	37	47	41	37	35
8	61	48	39	34	60	47	39	33	46	38	33	45	38	33	43	37	33	31
9	57	44	36	30	56	43	36	30	42	35	30	41	35	30	40	34	30	28
10	54	41	33	28	52	40	33	27	39	32	27	38	32	27	37	31	27	25

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

	0°	45°	90°
0°	4898	4898	4898
5°	4908	4861	4893
10°	4877	4816	4844
15°	4831	4753	4774
20°	4742	4674	4670
25°	4653	4569	4573
30°	4542	4455	4427
35°	4433	4345	4292
40°	4303	4209	4146
45°	4176	4092	4013
50°	4061	3944	3844
55°	3912	3808	3690
60°	3762	3636	3524
65°	3584	3462	3348
70°	3392	3238	3134
75°	3125	3002	2909
80°	2754	2708	2641
85°	2427	2427	2376



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	52.0	3.7
10°-20°	146.5	10.3
20°-30°	215.7	15.2
30°-40°	251.0	17.7
40°-50°	251.1	17.7
50°-60°	219.6	15.5
60°-70°	163.1	11.5
70°-80°	92.9	6.5
80°-90°	26.8	1.9
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°	414.1	29.2
0°-40°	665.1	46.9
0°-60°	1135.8	80.1
0°-90°	1418.6	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1418.6	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	551	551	551	551	551	
5°	550	549	545	549	548	52
15°	525	522	516	520	519	148
25°	474	472	466	467	466	218
35°	408	405	400	397	396	255
45°	332	331	326	321	319	257
55°	252	251	246	240	238	226
65°	170	169	165	161	159	169
75°	91	89	87	86	85	97
85°	24	23	24	23	23	27
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	551.0	551.0	551.0	551.0	551.0
2.5°	552.8	551.5	547.0	551.5	551.0
5°	550.1	549.2	544.8	548.8	548.4
7.5°	546.6	544.8	539.8	543.9	543.4
10°	540.3	538.9	533.6	537.6	536.7
12.5°	533.1	531.8	525.9	529.1	528.2
15°	525.0	522.3	516.5	519.7	518.8
17.5°	513.4	511.6	505.8	508.4	507.1
20°	501.3	499.0	494.1	494.5	493.7
22.5°	488.3	486.0	480.2	482.0	480.2
25°	474.4	472.1	465.9	467.2	466.3
27.5°	458.7	456.4	450.6	451.1	449.3
30°	442.5	439.8	434.0	433.6	431.3
32.5°	426.4	423.7	417.9	416.1	413.8
35°	408.5	404.9	400.4	396.8	395.5
37.5°	390.1	388.3	381.6	379.3	377.5
40°	370.8	369.0	362.7	359.6	357.3
42.5°	352.4	350.2	344.3	339.9	338.1
45°	332.2	330.9	325.5	320.6	319.2
47.5°	312.5	312.1	305.3	300.4	298.2
50°	293.7	291.0	285.2	280.7	278.0
52.5°	271.7	271.3	266.3	260.5	258.3
55°	252.4	250.6	245.7	240.3	238.1
57.5°	232.3	231.4	225.1	220.6	218.4
60°	211.6	209.8	204.5	200.4	198.2
62.5°	191.9	189.7	184.7	180.7	178.5
65°	170.4	169.0	164.6	161.0	159.2
67.5°	150.2	148.4	143.9	140.8	139.0
70°	130.5	127.8	124.6	122.0	120.6
72.5°	110.7	108.5	105.8	104.0	102.2
75°	91.0	89.2	87.4	85.6	84.7
77.5°	72.2	70.4	69.5	69.0	68.2
80°	53.8	52.9	52.9	52.5	51.6
82.5°	38.1	37.2	37.2	37.2	36.8
85°	23.8	23.3	23.8	22.9	23.3
87.5°	11.2	11.2	11.7	11.2	11.7
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)