

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: P243562

Luminaire Tested: **S124RDR-H350D830-X4F0-XX-UDD-F-W**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P243562  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1802-639-65)  
Test Lab: INNOVATION CENTER  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: NEO-RAY  
Catalog Number: S124RDR-H350D830-X4F0-XX-UDD-F-W  
Description: DEFINE 4 REGRESSED DIRECT RECESSED WITH SATIN FLUSH DIFFUSER.  
HIGH PERFORMANCE LIGHT ENGINE  
Light Source: (184) 3000K CCT, 80 CRI LEDS  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 1260.7 lumens  
Efficiency: N/A  
Efficacy: 112.6 lumens/watt  
Spacing Criteria (0/90/45): 1.21 / 1.1 / 1.25  
Luminous Opening: Rectangular (W 0.31' x L: 3.88' x H: 0')  
CIE Type: Direct

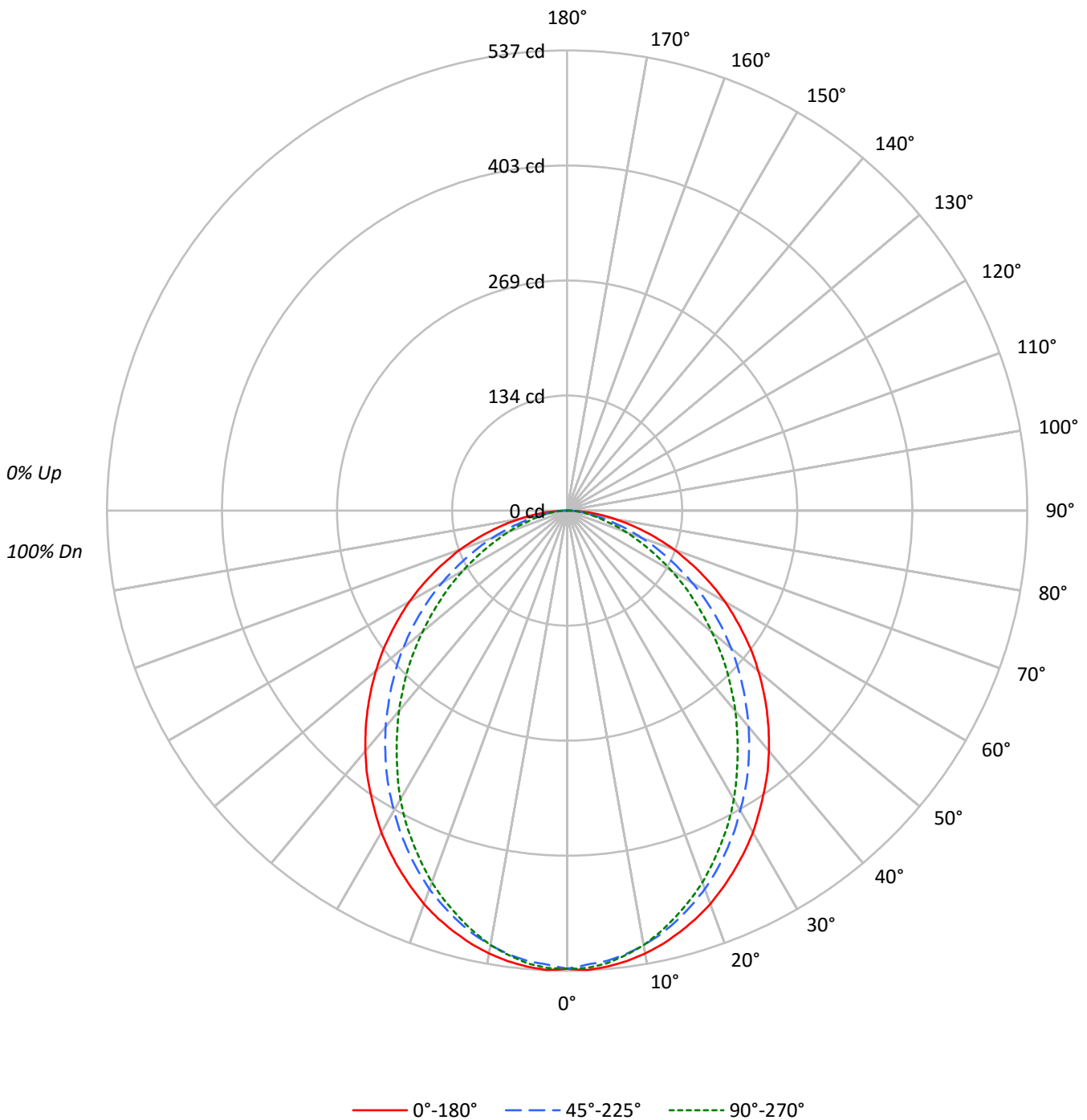
Input Watts (W): 11.2  
Input Voltage (V): 120  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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	105	101	97	107	103	99	96	98	95	93	95	92	90	91	89	87	85
2	100	92	86	80	97	90	84	79	87	82	78	84	79	76	81	77	74	72
3	92	82	74	68	89	80	73	67	77	71	66	74	69	65	72	67	64	61
4	84	73	64	58	82	71	64	57	69	62	57	67	61	56	64	59	55	53
5	78	65	57	50	76	64	56	50	62	55	49	60	54	49	58	53	48	46
6	72	59	50	44	70	58	50	44	56	49	44	55	48	43	53	47	43	41
7	67	54	45	39	65	53	45	39	51	44	39	50	43	39	49	43	38	36
8	62	49	41	35	61	49	41	35	47	40	35	46	39	35	45	39	34	33
9	58	45	37	32	57	45	37	32	44	37	32	42	36	31	41	36	31	30
10	55	42	34	29	54	41	34	29	40	34	29	39	33	29	39	33	29	27

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

	0°	45°	90°
0°	4753	4753	4753
5°	4767	4708	4732
10°	4737	4648	4648
15°	4684	4557	4514
20°	4621	4445	4367
25°	4535	4304	4187
30°	4450	4147	3994
35°	4346	3994	3763
40°	4249	3823	3544
45°	4142	3641	3314
50°	4027	3454	3045
55°	3901	3240	2776
60°	3781	2996	2498
65°	3618	2705	2183
70°	3446	2388	1897
75°	3184	1992	1545
80°	2908	1556	1413
85°	2580	1489	1407



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	50.3	4.0
10°-20°	140.4	11.1
20°-30°	203.6	16.2
30°-40°	232.1	18.4
40°-50°	225.8	17.9
50°-60°	189.7	15.0
60°-70°	132.2	10.5
70°-80°	68.2	5.4
80°-90°	18.4	1.5
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°	394.3	31.3
0°-40°	626.4	49.7
0°-60°	1041.9	82.6
0°-90°	1260.7	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1260.7	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	535	535	535	535	535	
5°	534	533	528	532	530	51
15°	509	505	495	494	490	144
25°	462	454	439	432	427	213
35°	400	388	368	354	347	251
45°	330	314	290	271	264	254
55°	252	236	209	188	179	225
65°	172	156	129	110	104	170
75°	93	78	58	48	45	99
85°	25	16	15	14	14	29
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	534.7	534.7	534.7	534.7	534.7
2.5°	536.6	535.0	530.3	534.7	534.3
5°	534.3	532.7	527.6	531.5	530.3
7.5°	530.3	528.3	522.4	525.2	523.2
10°	524.8	522.8	514.9	516.9	514.9
12.5°	517.7	514.9	506.2	506.6	503.5
15°	509.0	505.1	495.2	494.4	490.5
17.5°	499.5	494.4	483.0	481.0	476.6
20°	488.5	482.2	469.9	465.6	461.7
22.5°	475.9	468.4	454.9	449.8	444.7
25°	462.4	453.8	438.8	432.5	426.9
27.5°	448.6	438.4	422.2	414.3	408.8
30°	433.6	421.8	404.0	395.0	389.1
32.5°	417.1	405.2	386.7	375.6	368.1
35°	400.5	388.3	368.1	354.3	346.8
37.5°	384.3	370.5	348.8	334.6	325.9
40°	366.2	351.6	329.5	313.3	305.4
42.5°	348.0	333.0	309.3	292.4	283.7
45°	329.5	313.7	289.6	271.1	263.6
47.5°	310.5	294.7	269.9	250.6	241.9
50°	291.2	275.4	249.8	228.5	220.2
52.5°	272.3	255.7	230.0	208.3	199.7
55°	251.7	235.6	209.1	187.8	179.1
57.5°	232.0	215.0	189.4	167.7	160.6
60°	212.7	195.7	168.5	147.6	140.5
62.5°	192.2	175.2	148.4	128.2	121.9
65°	172.0	155.5	128.6	110.1	103.8
67.5°	151.5	136.5	110.5	92.7	87.6
70°	132.6	115.6	91.9	76.5	73.0
72.5°	112.5	97.5	74.6	61.9	59.2
75°	92.7	78.5	58.0	48.5	45.0
77.5°	74.6	60.8	43.8	35.9	35.9
80°	56.8	44.6	30.4	28.4	27.6
82.5°	40.2	28.8	22.5	20.9	20.5
85°	25.3	16.2	14.6	13.8	13.8
87.5°	12.2	7.5	7.5	7.1	7.1
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)