

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: P243586

Luminaire Tested: **S124RDR-H350D940-X4F0-XX-UDD-F-W**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P243586  
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-H350D940-X4F0-XX-UDD-F-W  
Description: DEFINE 4 REGRESSED DIRECT RECESSED WITH SATIN FLUSH DIFFUSER.  
HIGH PERFORMANCE LIGHT ENGINE  
Light Source: (184) 4000K CCT, 90 CRI LEDS  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 1192.8 lumens  
Efficiency: N/A  
Efficacy: 106.5 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

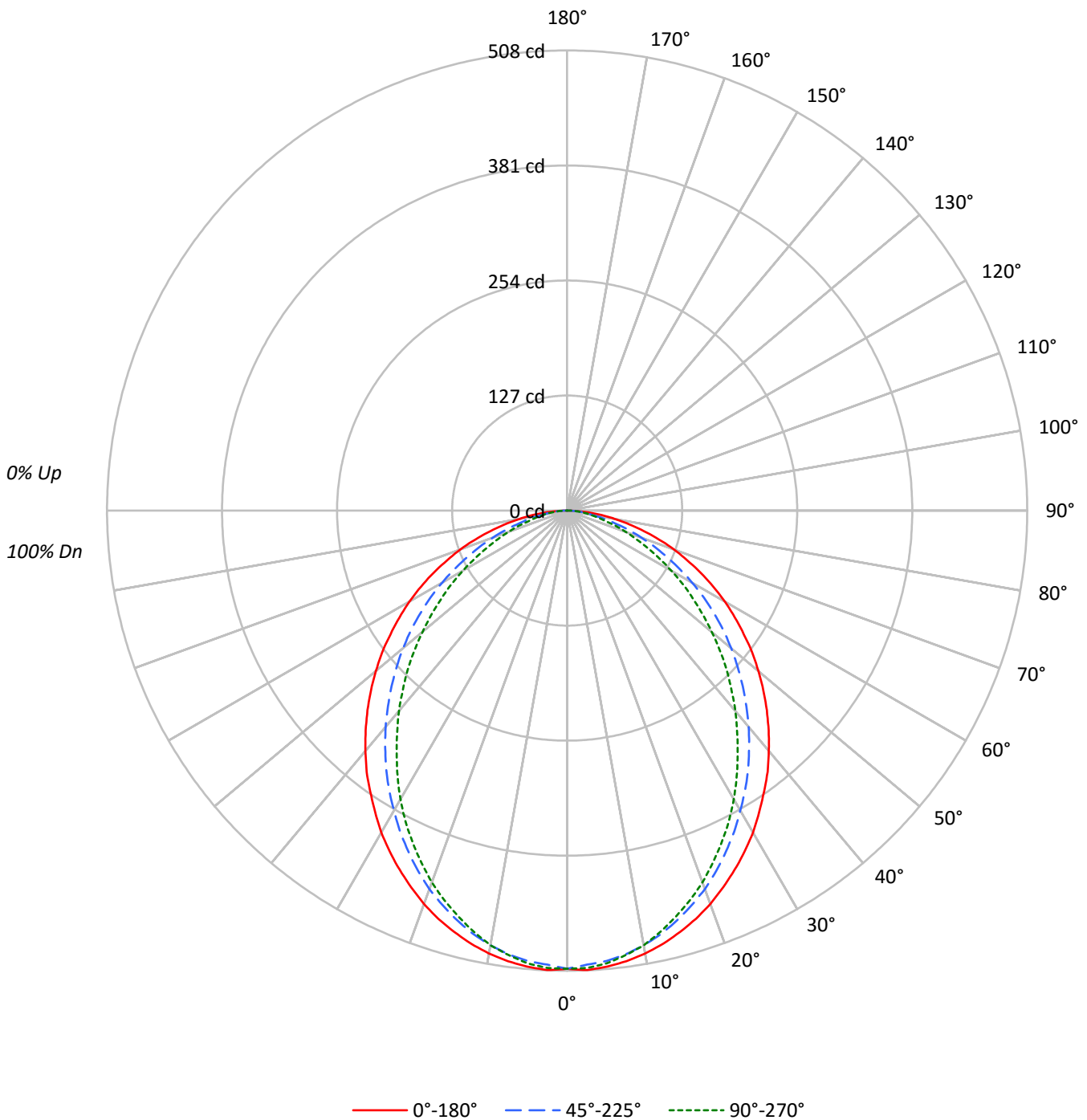
Input Watts (W): 11.2  
Input Voltage (V): 120  
Input Current (A<sub>in</sub>): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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	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°	4496	4496	4496
5°	4510	4453	4477
10°	4481	4397	4397
15°	4432	4311	4270
20°	4371	4206	4132
25°	4291	4071	3961
30°	4211	3924	3778
35°	4112	3780	3560
40°	4020	3617	3352
45°	3918	3444	3135
50°	3810	3268	2881
55°	3691	3065	2627
60°	3577	2834	2363
65°	3424	2560	2065
70°	3259	2261	1796
75°	3012	1885	1463
80°	2754	1469	1336
85°	2438	1407	1336



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	47.6	4.0
10°-20°	132.8	11.1
20°-30°	192.6	16.2
30°-40°	219.6	18.4
40°-50°	213.6	17.9
50°-60°	179.5	15.0
60°-70°	125.0	10.5
70°-80°	64.6	5.4
80°-90°	17.5	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°	373.1	31.3
0°-40°	592.6	49.7
0°-60°	985.7	82.6
0°-90°	1192.8	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1192.8	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	506	506	506	506	506	
5°	505	504	499	503	502	48
15°	482	478	468	468	464	136
25°	438	429	415	409	404	202
35°	379	367	348	335	328	237
45°	312	297	274	256	249	240
55°	238	223	198	178	170	213
65°	163	147	122	104	98	161
75°	88	74	55	46	43	93
85°	24	15	14	13	13	27
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	505.8	505.8	505.8	505.8	505.8
2.5°	507.7	506.2	501.7	505.8	505.4
5°	505.4	504.0	499.1	502.8	501.7
7.5°	501.7	499.8	494.2	496.9	495.0
10°	496.5	494.6	487.2	489.0	487.2
12.5°	489.8	487.2	478.9	479.3	476.3
15°	481.6	477.8	468.5	467.7	464.0
17.5°	472.6	467.7	456.9	455.0	450.9
20°	462.1	456.2	444.6	440.5	436.8
22.5°	450.2	443.1	430.4	425.6	420.7
25°	437.5	429.3	415.1	409.1	403.9
27.5°	424.4	414.7	399.4	392.0	386.7
30°	410.3	399.1	382.3	373.7	368.1
32.5°	394.6	383.4	365.8	355.4	348.3
35°	378.9	367.3	348.3	335.2	328.1
37.5°	363.6	350.5	330.0	316.6	308.3
40°	346.4	332.6	311.7	296.4	288.9
42.5°	329.2	315.1	292.7	276.6	268.4
45°	311.7	296.8	274.0	256.5	249.4
47.5°	293.8	278.9	255.3	237.0	228.8
50°	275.5	260.6	236.3	216.1	208.3
52.5°	257.6	241.9	217.6	197.1	188.9
55°	238.2	222.9	197.8	177.7	169.5
57.5°	219.5	203.4	179.2	158.7	151.9
60°	201.2	185.2	159.4	139.6	132.9
62.5°	181.8	165.7	140.4	121.3	115.3
65°	162.8	147.1	121.7	104.2	98.2
67.5°	143.3	129.2	104.5	87.7	82.9
70°	125.4	109.4	87.0	72.4	69.1
72.5°	106.4	92.2	70.6	58.6	56.0
75°	87.7	74.3	54.9	45.9	42.6
77.5°	70.6	57.5	41.4	34.0	34.0
80°	53.8	42.2	28.7	26.9	26.1
82.5°	38.1	27.3	21.3	19.8	19.4
85°	23.9	15.3	13.8	13.1	13.1
87.5°	11.6	7.1	7.1	6.7	6.7
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)