

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: P231749

Luminaire Tested: **S124-RDR-LO-35-X-0048-1-U-DD-1-W**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P231749  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P33917)  
Test Lab: INNOVATION CENTER-P3  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: NEO-RAY  
Catalog Number: S124-RDR-LO-35-X-0048-1-U-DD-1-W  
Description: DEFINE 4 LED LINEAR REGRESSED DIRECT RECESSED LED LUMINAIRE WITH FLUSH LENS.  
Light Source: 3500K CCT, 80 CRI LEDS  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 1413.4 lumens  
Efficiency: N/A  
Efficacy: 103.9 lumens/watt  
Spacing Criteria (0/90/45): 1.2 / 1.1 / 1.25  
Luminous Opening: Rectangular (W 0.31' x L: 3.92' x H: 0')  
CIE Type: Direct

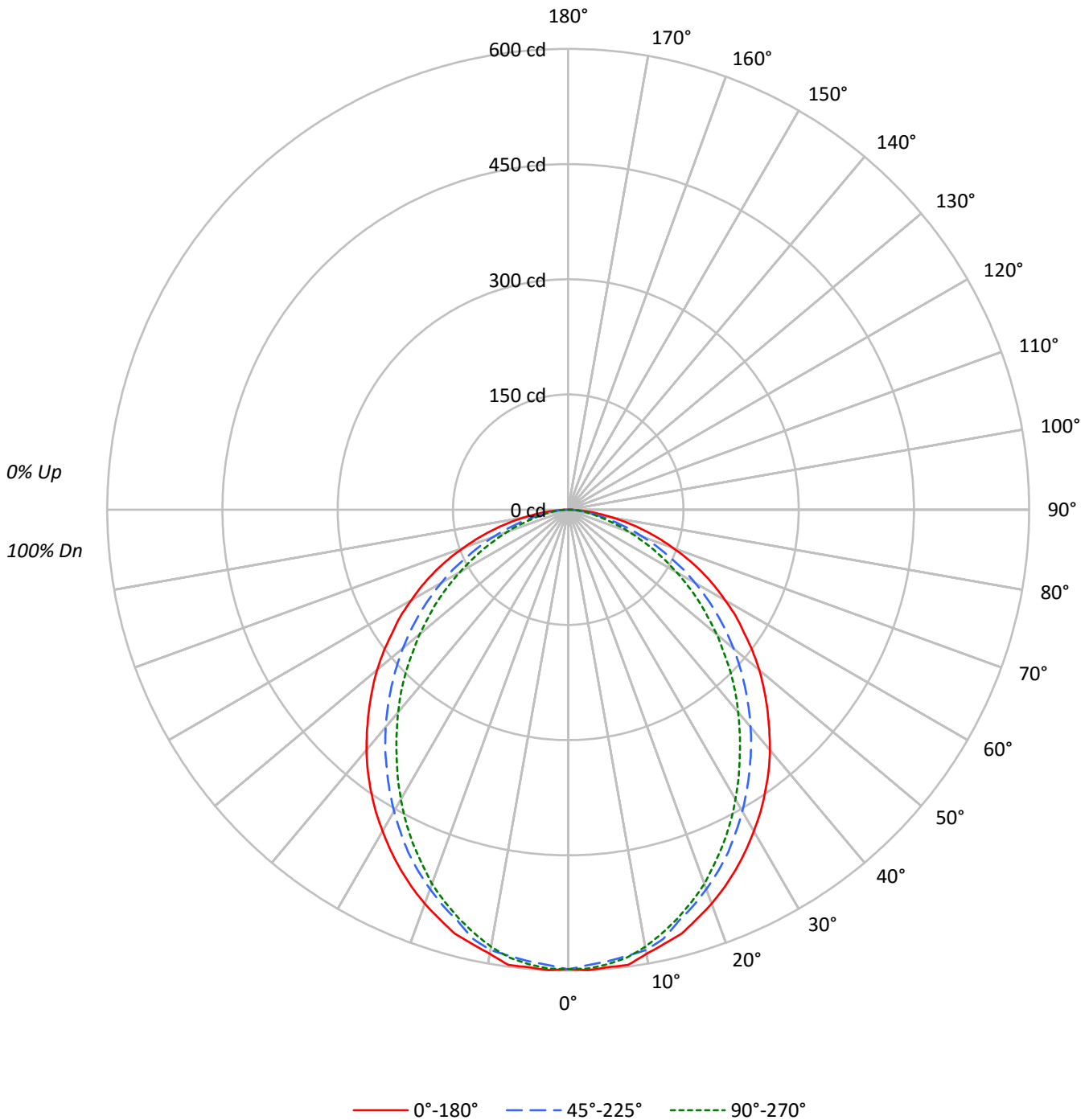
Input Watts (W): 13.6  
Input Voltage (V): 120  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



TEST NUMBER: P231749

CATALOG NUMBER: S124-RDR-LO-35-X-0048-1-U-DD-1-W

### Luminous Intensity Polar Plot





TEST NUMBER: P231749

CATALOG NUMBER: S124-RDR-LO-35-X-0048-1-U-DD-1-W

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

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

	0°	45°	90°
0°	5361	5361	5361
5°	5377	5309	5343
10°	5341	5296	5257
15°	5300	5144	5109
20°	5206	5014	4942
25°	5108	4867	4734
30°	4999	4691	4506
35°	4894	4504	4261
40°	4777	4322	4025
45°	4642	4120	3784
50°	4525	3914	3521
55°	4370	3685	3245
60°	4228	3423	2918
65°	4073	3085	2580
70°	3799	2722	2211
75°	3483	2247	1762
80°	3014	1729	1564
85°	2447	1501	1388



TEST NUMBER: P231749

CATALOG NUMBER: S124-RDR-LO-35-X-0048-1-U-DD-1-W

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	56.4	4.0
10°-20°	157.6	11.1
20°-30°	228.2	16.1
30°-40°	259.9	18.4
40°-50°	253.6	17.9
50°-60°	214.1	15.2
60°-70°	149.7	10.6
70°-80°	75.3	5.3
80°-90°	18.6	1.3
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°	442.2	31.3
0°-40°	702.1	49.7
0°-60°	1169.8	82.8
0°-90°	1413.4	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1413.4	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	598	598	598	598	598	
5°	598	596	590	595	594	57
15°	571	567	554	554	551	161
25°	517	509	492	484	479	238
35°	447	434	412	396	390	280
45°	366	352	325	306	299	283
55°	280	264	236	215	208	251
65°	192	173	146	128	122	189
75°	101	85	65	54	51	107
85°	24	16	15	14	14	28
90°	0	0	0	0	0	



TEST NUMBER: P231749

CATALOG NUMBER: S124-RDR-LO-35-X-0048-1-U-DD-1-W

**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	598.3	598.3	598.3	598.3	598.3
2.5°	600.0	598.9	593.5	598.9	597.8
5°	597.8	595.6	590.2	595.1	594.0
7.5°	597.8	595.1	585.9	589.1	588.1
10°	587.0	588.6	582.1	578.9	577.8
12.5°	578.9	576.2	572.4	567.5	564.8
15°	571.3	567.0	554.5	554.5	550.7
17.5°	558.3	555.1	541.0	541.0	535.0
20°	545.9	541.0	525.8	525.8	518.3
22.5°	531.8	526.4	509.6	508.0	498.3
25°	516.6	509.1	492.3	484.2	478.8
27.5°	500.4	491.2	472.8	462.5	457.7
30°	483.1	473.4	453.4	440.9	435.5
32.5°	466.3	455.0	432.8	419.3	412.8
35°	447.4	434.4	411.7	396.5	389.5
37.5°	428.5	415.5	391.1	373.8	366.8
40°	408.4	393.8	369.5	351.6	344.1
42.5°	387.3	372.7	347.3	328.4	321.9
45°	366.3	352.2	325.1	305.7	298.6
47.5°	345.7	330.0	303.0	282.4	274.3
50°	324.6	308.4	280.8	260.2	252.6
52.5°	302.4	286.2	258.6	237.5	228.8
55°	279.7	263.5	235.9	214.8	207.7
57.5°	259.1	240.7	213.2	192.6	185.0
60°	235.9	217.5	191.0	170.4	162.8
62.5°	214.2	195.3	169.3	149.3	141.7
65°	192.1	173.1	145.5	128.2	121.7
67.5°	168.8	150.9	124.4	108.2	102.2
70°	145.0	127.7	103.9	89.3	84.4
72.5°	122.8	106.0	83.9	70.9	67.6
75°	100.6	84.9	64.9	54.1	50.9
77.5°	79.0	64.9	48.1	40.0	39.0
80°	58.4	46.5	33.5	30.3	30.3
82.5°	40.0	29.2	23.3	22.2	22.2
85°	23.8	15.7	14.6	14.1	13.5
87.5°	10.3	7.0	6.5	6.0	6.0
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)