

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: P231747

Luminaire Tested: **S124-RDR-LO-27-X-0048-1-U-DD-1-W**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P231747
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-27-X-0048-1-U-DD-1-W
Description: DEFINE 4 LED LINEAR REGRESSED DIRECT RECESSED LED LUMINAIRE WITH FLUSH LENS.
Light Source: 2700K CCT, 90 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 1090.9 lumens
Efficiency: N/A
Efficacy: 80.2 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

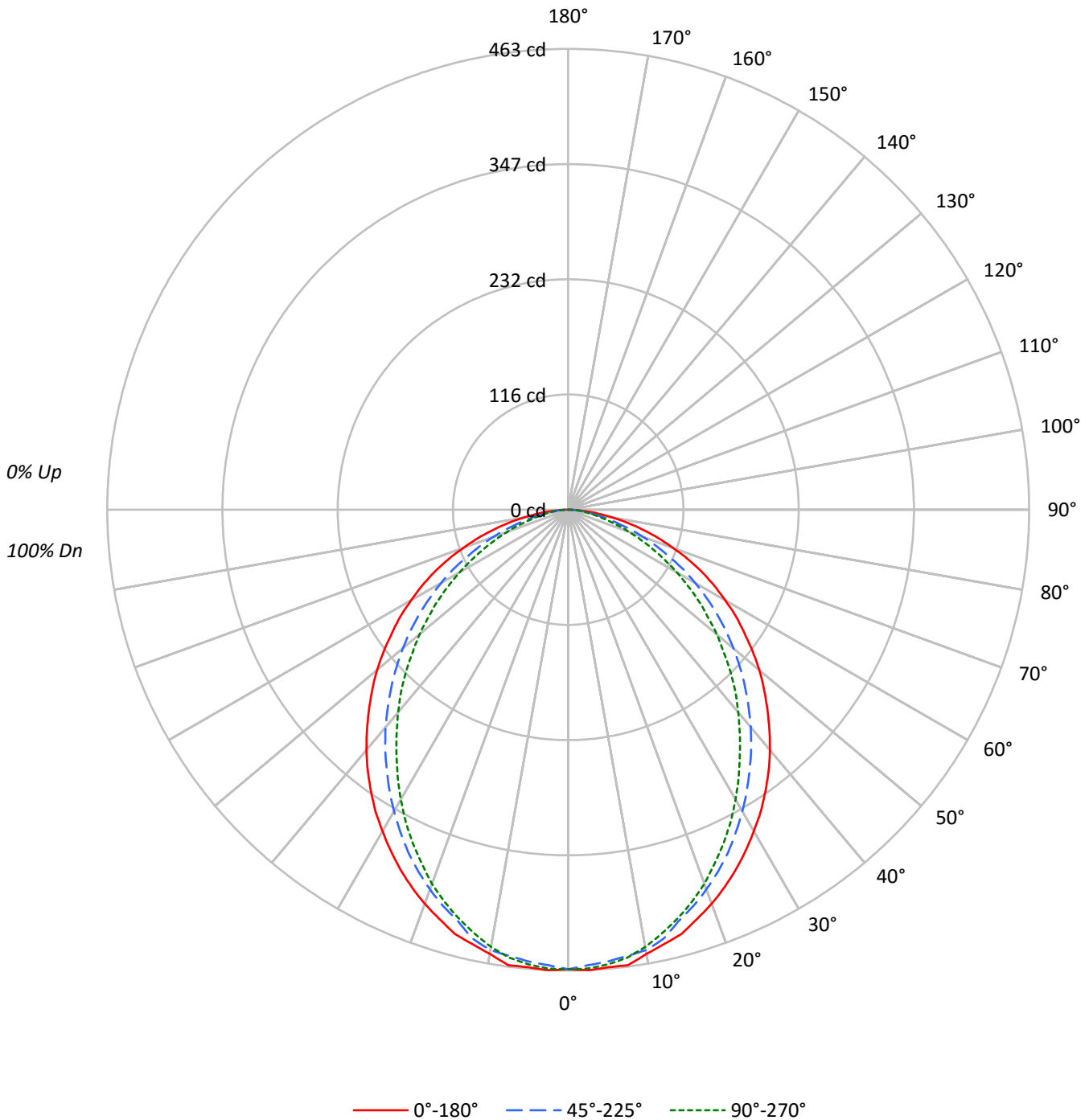
Input Watts (W): 13.6
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	105	101	97	107	103	99	96	99	96	93	95	92	90	91	89	87					85				
2	100	92	86	80	98	90	85	79	87	82	78	84	80	76	81	77	74					72				
3	92	82	74	68	89	80	73	67	77	71	66	74	69	65	72	67	64					62				
4	84	73	64	58	82	71	64	58	69	62	57	67	61	56	65	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	35					33				
9	58	45	37	32	57	45	37	32	44	37	32	43	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°	4138	4138	4138
5°	4150	4098	4124
10°	4123	4088	4058
15°	4091	3970	3944
20°	4017	3871	3814
25°	3943	3757	3653
30°	3858	3620	3478
35°	3777	3476	3288
40°	3688	3336	3107
45°	3582	3181	2921
50°	3492	3021	2718
55°	3373	2845	2504
60°	3263	2642	2253
65°	3142	2381	1993
70°	2932	2101	1706
75°	2690	1735	1361
80°	2327	1336	1207
85°	1892	1162	1069



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	43.5	4.0
10°-20°	121.6	11.1
20°-30°	176.1	16.1
30°-40°	200.6	18.4
40°-50°	195.7	17.9
50°-60°	165.3	15.1
60°-70°	115.5	10.6
70°-80°	58.1	5.3
80°-90°	14.4	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°	341.3	31.3
0°-40°	541.9	49.7
0°-60°	902.9	82.8
0°-90°	1090.9	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1090.9	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	462	462	462	462	462	
5°	461	460	456	459	458	44
15°	441	438	428	428	425	124
25°	399	393	380	374	370	184
35°	345	335	318	306	301	216
45°	283	272	251	236	230	218
55°	216	203	182	166	160	194
65°	148	134	112	99	94	146
75°	78	66	50	42	39	82
85°	18	12	11	11	10	22
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	461.8	461.8	461.8	461.8	461.8
2.5°	463.1	462.2	458.1	462.2	461.4
5°	461.4	459.7	455.6	459.3	458.5
7.5°	461.4	459.3	452.2	454.7	453.9
10°	453.1	454.3	449.3	446.8	446.0
12.5°	446.8	444.7	441.8	438.0	435.9
15°	441.0	437.6	428.0	428.0	425.1
17.5°	430.9	428.4	417.6	417.6	413.0
20°	421.3	417.6	405.9	405.9	400.0
22.5°	410.5	406.3	393.3	392.1	384.6
25°	398.8	392.9	380.0	373.7	369.5
27.5°	386.2	379.2	365.0	357.0	353.3
30°	372.9	365.4	349.9	340.3	336.1
32.5°	359.9	351.2	334.1	323.6	318.6
35°	345.3	335.3	317.8	306.1	300.6
37.5°	330.7	320.7	301.9	288.5	283.1
40°	315.3	304.0	285.2	271.4	265.6
42.5°	299.0	287.7	268.1	253.5	248.5
45°	282.7	271.8	251.0	235.9	230.5
47.5°	266.8	254.7	233.8	218.0	211.7
50°	250.5	238.0	216.7	200.8	195.0
52.5°	233.4	220.9	199.6	183.3	176.6
55°	215.9	203.4	182.1	165.8	160.3
57.5°	200.0	185.8	164.5	148.7	142.8
60°	182.1	167.9	147.4	131.5	125.7
62.5°	165.4	150.7	130.7	115.2	109.4
65°	148.2	133.6	112.3	99.0	94.0
67.5°	130.3	116.5	96.0	83.5	78.9
70°	111.9	98.5	80.2	68.9	65.1
72.5°	94.8	81.8	64.7	54.7	52.2
75°	77.7	65.6	50.1	41.8	39.3
77.5°	61.0	50.1	37.2	30.9	30.1
80°	45.1	35.9	25.9	23.4	23.4
82.5°	30.9	22.5	18.0	17.1	17.1
85°	18.4	12.1	11.3	10.9	10.4
87.5°	7.9	5.4	5.0	4.6	4.6
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)