

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: P231676

Luminaire Tested: **S123-DR-LO-30-X-0048-1-U-DD-1-W**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P231676
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P29683)
Test Lab: INNOVATION CENTER-P2
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: NEO-RAY
Catalog Number: S123-DR-LO-30-X-0048-1-U-DD-1-W
Description: DEFINE 3 LED LINEAR DIRECT RECESSED LED LUMINAIRE WITH FLUSH LENS.
Light Source: 3000K CCT, 80 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 1372.8 lumens
Efficiency: N/A
Efficacy: 100.9 lumens/watt
Spacing Criteria (0/90/45): 1.21 / 1.18 / 1.31
Luminous Opening: Rectangular (W 0.22' x L: 3.92' x H: 0')
CIE Type: Direct

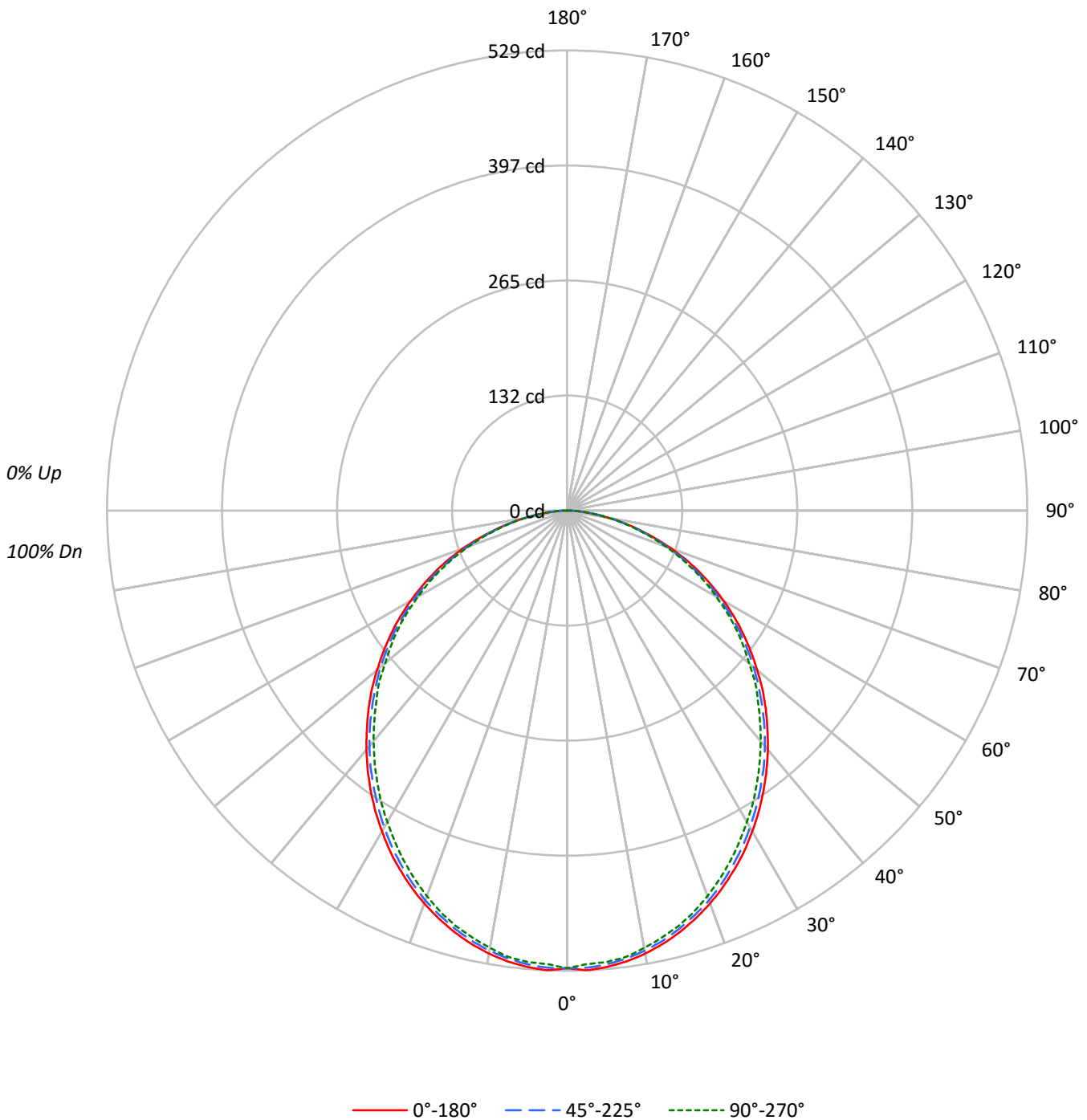
Input Watts (W): 13.6
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	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	59
4	83	71	62	56	81	70	62	55	67	60	55	65	59	54	63	57	53	51
5	76	64	55	48	74	63	54	48	60	53	47	58	52	47	57	51	46	44
6	71	57	49	42	69	56	48	42	55	47	42	53	46	41	51	45	41	39
7	66	52	43	37	64	51	43	37	50	42	37	48	42	37	47	41	36	34
8	61	48	39	33	59	47	39	33	46	38	33	44	38	33	43	37	33	31
9	57	44	36	30	56	43	35	30	42	35	30	41	34	30	40	34	30	28
10	54	40	33	27	52	40	32	27	39	32	27	38	32	27	37	31	27	25

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	6475	6475	6475
5°	6506	6470	6435
10°	6462	6421	6380
15°	6390	6341	6299
20°	6294	6245	6177
25°	6180	6115	6032
30°	6050	5976	5875
35°	5912	5826	5720
40°	5766	5683	5560
45°	5620	5514	5399
50°	5459	5359	5231
55°	5304	5193	5090
60°	5117	4989	4861
65°	4895	4744	4648
70°	4584	4430	4329
75°	4099	4009	3918
80°	3487	3487	3487
85°	2810	2937	2937



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	49.6	3.6
10°-20°	140.0	10.2
20°-30°	206.7	15.1
30°-40°	241.7	17.6
40°-50°	243.9	17.8
50°-60°	215.8	15.7
60°-70°	161.5	11.8
70°-80°	89.7	6.5
80°-90°	24.1	1.8
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°	396.2	28.9
0°-40°	637.9	46.5
0°-60°	1097.6	80.0
0°-90°	1372.8	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1372.8	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	526	526	526	526	526	
5°	527	521	524	522	521	50
15°	502	496	498	496	494	141
25°	455	449	450	446	444	210
35°	394	388	388	382	381	246
45°	323	319	317	312	310	249
55°	247	245	242	237	237	221
65°	168	166	163	160	160	166
75°	86	85	84	83	82	92
85°	20	21	21	20	21	24
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	526.1	526.1	526.1	526.1	526.1
2.5°	528.9	523.2	526.1	524.7	521.8
5°	526.6	521.4	523.7	521.8	520.9
7.5°	522.8	517.1	519.5	517.6	517.6
10°	517.1	511.4	513.8	511.4	510.5
12.5°	510.0	504.3	506.7	503.8	502.9
15°	501.5	495.8	497.7	495.8	494.4
17.5°	491.5	486.3	487.7	485.4	483.9
20°	480.6	474.9	476.8	473.1	471.6
22.5°	468.3	462.6	464.1	459.3	458.4
25°	455.1	449.4	450.3	445.6	444.2
27.5°	441.3	435.2	436.1	430.9	429.0
30°	425.7	420.0	420.5	415.3	413.4
32.5°	410.1	404.4	404.4	398.7	397.8
35°	393.5	388.3	387.8	382.1	380.7
37.5°	376.5	371.7	371.2	365.1	363.7
40°	358.9	354.7	353.7	347.6	346.1
42.5°	340.9	336.7	335.7	329.6	328.2
45°	322.9	318.7	316.8	311.6	310.2
47.5°	304.5	301.2	298.3	293.6	293.6
50°	285.1	282.2	279.9	275.1	273.2
52.5°	266.1	263.8	260.9	256.7	255.2
55°	247.2	244.8	242.0	237.2	237.2
57.5°	227.8	224.9	222.1	218.8	217.8
60°	207.9	205.5	202.7	199.4	197.5
62.5°	188.0	186.1	183.3	180.4	179.5
65°	168.1	165.7	162.9	160.5	159.6
67.5°	148.2	145.4	143.0	140.6	140.2
70°	127.4	125.0	123.1	120.3	120.3
72.5°	106.1	104.2	103.2	101.8	101.3
75°	86.2	85.2	84.3	82.9	82.4
77.5°	67.2	67.2	66.3	65.8	65.8
80°	49.2	50.2	49.2	49.2	49.2
82.5°	33.1	33.6	34.1	34.1	33.6
85°	19.9	20.8	20.8	20.4	20.8
87.5°	9.5	9.5	9.5	9.5	9.5
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)