

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: P242958

Luminaire Tested: **S121DR-H490D930-X4F0-XX-UDD-F-W**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P242958
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1802-639-47)
Test Lab: INNOVATION CENTER
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: NEO-RAY
Catalog Number: S121DR-H490D930-X4F0-XX-UDD-F-W
Description: DEFINE 1 DIRECT RECESSED WITH SATIN FLUSH DIFFUSER.
HIGH PERFORMANCE LIGHT ENGINE
Light Source: (184) 3000K CCT, 90 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 1487.9 lumens
Efficiency: N/A
Efficacy: 86.5 lumens/watt
Spacing Criteria (0/90/45): 1.2 / 1.16 / 1.29
Luminous Opening: Rectangular (W 0.09' x L: 3.88' x H: 0')
CIE Type: Direct

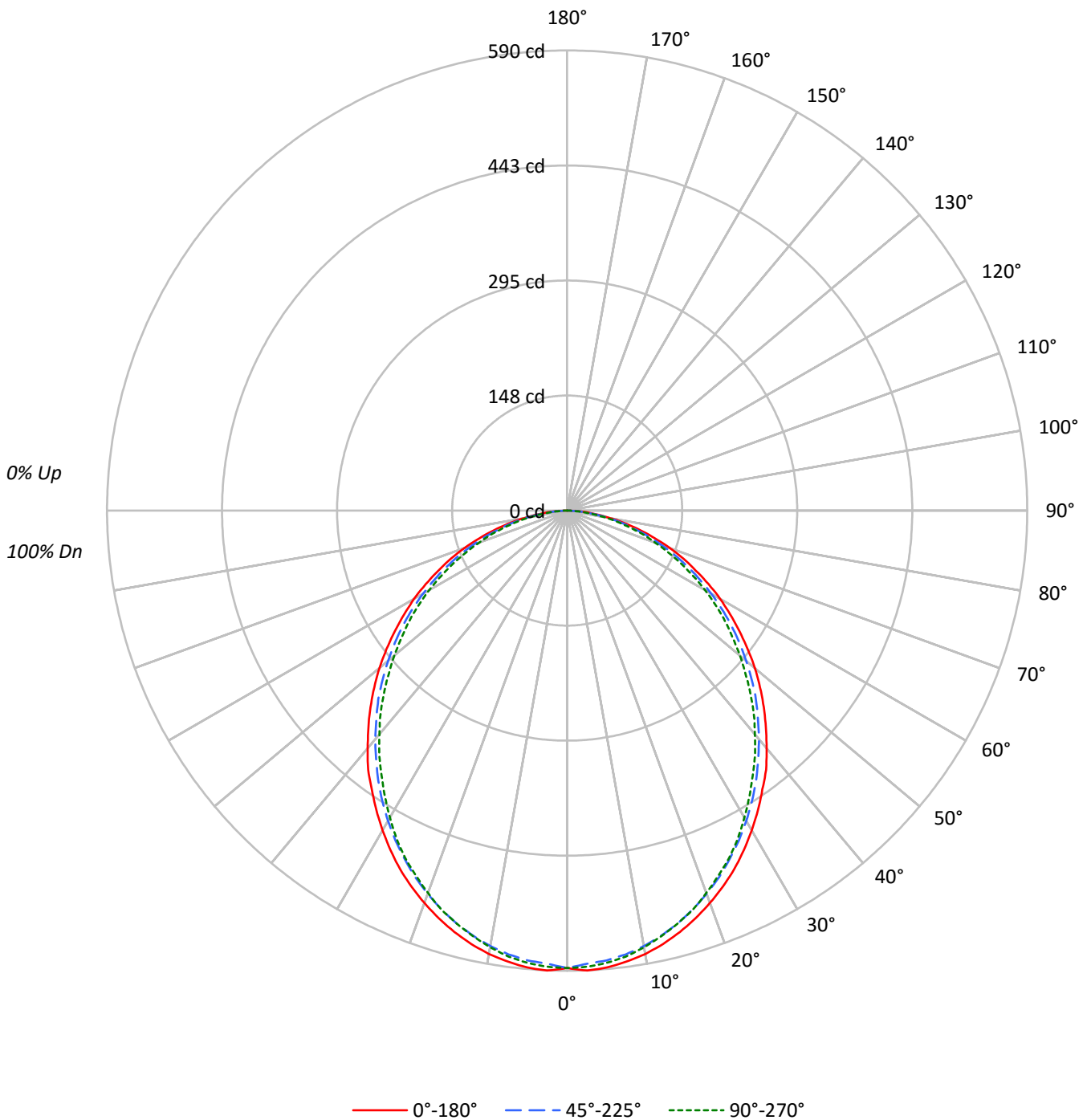
Input Watts (W): 17.2
Input Voltage (V): 120
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	97	106	102	98	95	98	95	92	94	91	89	90	88	86	84
2	99	91	85	79	97	89	83	78	86	81	76	83	78	75	80	76	73	71
3	91	81	73	66	88	79	72	66	76	70	64	73	68	63	71	66	62	60
4	83	72	63	56	81	70	62	56	68	61	55	65	59	54	63	58	54	52
5	77	64	55	49	75	63	55	48	61	54	48	59	52	47	57	51	47	45
6	71	58	49	43	69	57	49	42	55	48	42	53	47	42	52	46	41	39
7	66	53	44	38	64	52	44	38	50	43	37	49	42	37	47	41	37	35
8	61	48	40	34	60	47	39	34	46	39	34	45	38	33	44	38	33	31
9	57	44	36	31	56	44	36	30	42	35	30	41	35	30	40	34	30	28
10	54	41	33	28	53	40	33	28	39	32	28	38	32	27	37	32	27	26

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	17378	17378	17378
5°	17492	17218	17313
10°	17366	17056	17104
15°	17156	16807	16807
20°	16882	16488	16453
25°	16578	16118	16065
30°	16197	15714	15547
35°	15789	15275	15000
40°	15390	14802	14485
45°	14943	14347	13937
50°	14483	13806	13331
55°	13927	13281	12775
60°	13434	12658	12113
65°	12767	11968	11316
70°	12102	11115	10404
75°	11082	10086	9456
80°	9641	8907	8259
85°	8329	6833	5711



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	55.3	3.7
10°-20°	155.5	10.5
20°-30°	228.6	15.4
30°-40°	265.3	17.8
40°-50°	264.6	17.8
50°-60°	230.4	15.5
60°-70°	169.6	11.4
70°-80°	94.4	6.3
80°-90°	24.3	1.6
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°	439.4	29.5
0°-40°	704.7	47.4
0°-60°	1199.6	80.6
0°-90°	1487.9	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1487.9	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	586	586	586	586	586	
5°	588	585	579	583	582	56
15°	559	556	548	550	548	158
25°	507	501	493	493	491	233
35°	436	431	422	417	415	273
45°	357	351	342	335	333	275
55°	270	265	257	250	247	241
65°	182	178	171	164	161	181
75°	97	92	88	84	83	103
85°	24	23	20	17	17	28
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	586.5	586.5	586.5	586.5	586.5
2.5°	590.3	587.0	581.6	586.5	585.4
5°	588.1	584.9	578.9	583.2	582.1
7.5°	583.2	580.5	574.0	577.8	576.7
10°	577.2	574.0	566.9	570.2	568.5
12.5°	569.1	566.4	558.2	560.9	558.8
15°	559.3	556.0	547.9	550.1	547.9
17.5°	547.9	544.6	535.9	537.6	536.5
20°	535.4	531.0	522.9	524.0	521.8
22.5°	521.8	516.9	508.8	508.8	506.6
25°	507.1	501.1	493.0	493.0	491.4
27.5°	490.8	485.4	476.7	475.6	474.0
30°	473.4	468.0	459.3	457.1	454.4
32.5°	455.5	449.5	441.4	437.6	434.8
35°	436.5	431.0	422.3	417.4	414.7
37.5°	419.1	411.5	402.2	397.9	395.7
40°	397.9	391.4	382.7	376.7	374.5
42.5°	377.2	371.2	362.0	356.0	354.4
45°	356.6	350.6	342.4	335.4	332.6
47.5°	335.4	329.4	321.2	314.2	310.4
50°	314.2	308.2	299.5	292.4	289.2
52.5°	291.9	287.5	278.3	271.8	267.4
55°	269.6	264.7	257.1	250.0	247.3
57.5°	247.9	243.5	235.4	227.7	226.1
60°	226.7	222.3	213.6	207.1	204.4
62.5°	204.4	200.0	191.9	185.3	182.6
65°	182.1	178.3	170.7	163.6	161.4
67.5°	161.4	156.5	149.5	143.0	140.2
70°	139.7	134.3	128.3	122.8	120.1
72.5°	117.9	113.6	108.7	103.3	102.2
75°	96.8	92.4	88.1	84.2	82.6
77.5°	76.6	73.4	70.1	66.3	65.2
80°	56.5	54.4	52.2	49.5	48.4
82.5°	39.7	38.0	34.8	32.6	31.5
85°	24.5	22.8	20.1	17.4	16.8
87.5°	11.4	9.2	7.1	6.0	5.4
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)