

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: P242953

Luminaire Tested: **S121DR-H490D840-X4F0-XX-UDD-F-W**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P242953
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-H490D840-X4F0-XX-UDD-F-W
Description: DEFINE 1 DIRECT RECESSED WITH SATIN FLUSH DIFFUSER.
HIGH PERFORMANCE LIGHT ENGINE
Light Source: (184) 4000K CCT, 80 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 1843.0 lumens
Efficiency: N/A
Efficacy: 107.1 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

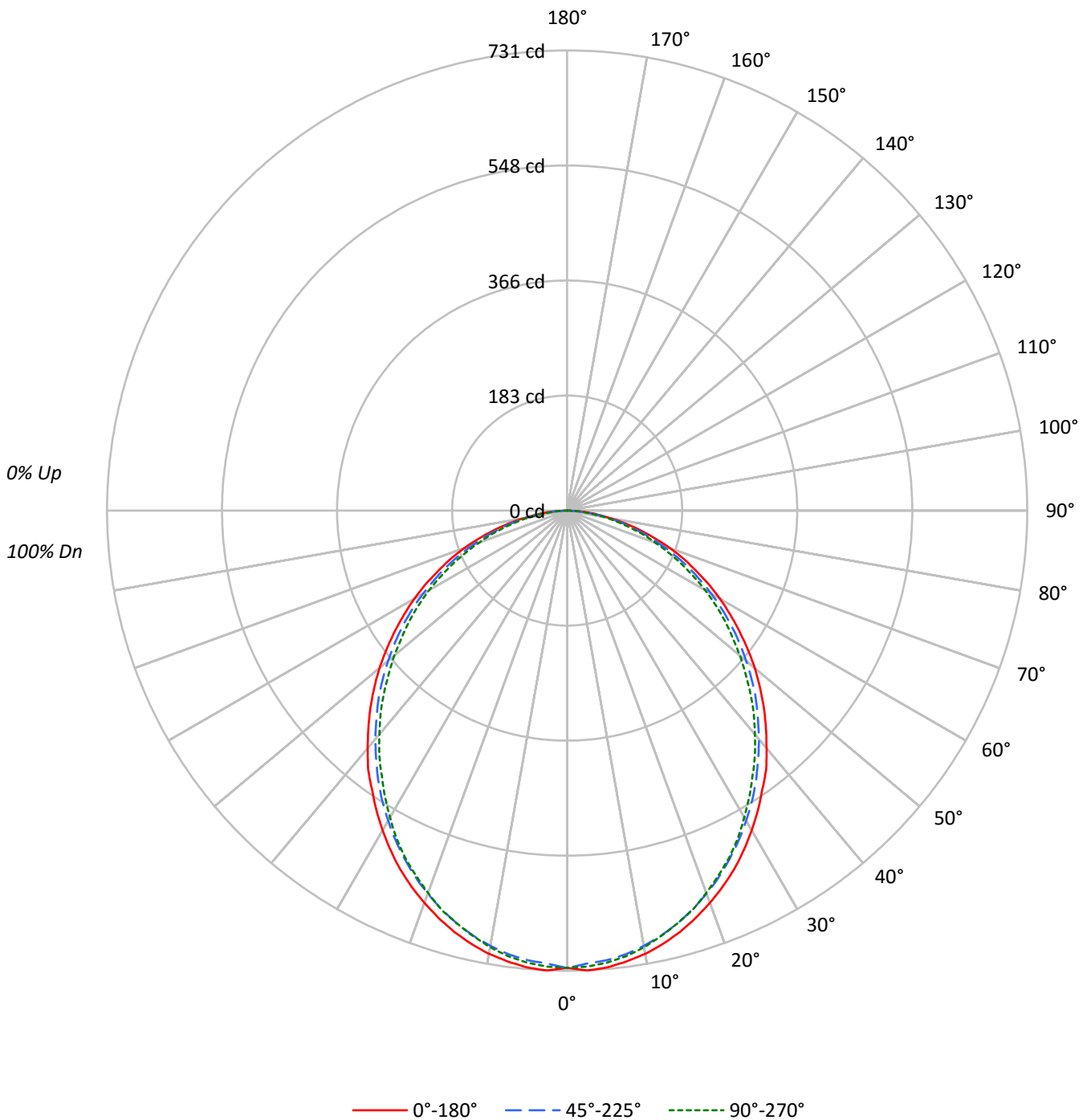
Input Watts (W): 17.2
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	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	80	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°	21523	21523	21523
5°	21668	21326	21448
10°	21512	21127	21187
15°	21252	20816	20816
20°	20912	20423	20379
25°	20538	19962	19897
30°	20063	19464	19255
35°	19554	18921	18581
40°	19061	18334	17943
45°	18508	17775	17264
50°	17936	17101	16511
55°	17249	16453	15823
60°	16634	15680	14999
65°	15810	14821	14022
70°	14987	13766	12891
75°	13715	12490	11711
80°	11944	11023	10221
85°	10301	8465	7105



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	68.5	3.7
10°-20°	192.6	10.5
20°-30°	283.2	15.4
30°-40°	328.6	17.8
40°-50°	327.8	17.8
50°-60°	285.3	15.5
60°-70°	210.0	11.4
70°-80°	117.0	6.3
80°-90°	30.1	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°	544.2	29.5
0°-40°	872.8	47.4
0°-60°	1485.9	80.6
0°-90°	1843.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1843.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	726	726	726	726	726	
5°	728	724	717	722	721	69
15°	693	689	679	681	679	195
25°	628	621	611	611	609	289
35°	541	534	523	517	514	339
45°	442	434	424	415	412	341
55°	334	328	318	310	306	299
65°	226	221	211	203	200	224
75°	120	114	109	104	102	127
85°	30	28	25	22	21	35
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	726.4	726.4	726.4	726.4	726.4
2.5°	731.2	727.1	720.4	726.4	725.1
5°	728.5	724.4	717.0	722.4	721.1
7.5°	722.4	719.0	711.0	715.7	714.3
10°	715.0	711.0	702.2	706.2	704.2
12.5°	704.9	701.5	691.4	694.8	692.1
15°	692.8	688.7	678.6	681.3	678.6
17.5°	678.6	674.6	663.8	665.9	664.5
20°	663.2	657.8	647.7	649.0	646.3
22.5°	646.3	640.3	630.2	630.2	627.5
25°	628.2	620.7	610.6	610.6	608.6
27.5°	608.0	601.2	590.4	589.1	587.1
30°	586.4	579.7	568.9	566.2	562.8
32.5°	564.2	556.8	546.7	542.0	538.6
35°	540.6	533.9	523.1	517.1	513.7
37.5°	519.1	509.7	498.2	492.8	490.1
40°	492.8	484.7	474.0	466.6	463.9
42.5°	467.2	459.8	448.4	441.0	439.0
45°	441.7	434.3	424.2	415.4	412.0
47.5°	415.4	408.0	397.9	389.1	384.4
50°	389.1	381.7	371.0	362.2	358.2
52.5°	361.5	356.2	344.7	336.6	331.2
55°	333.9	327.9	318.5	309.7	306.3
57.5°	307.0	301.6	291.5	282.1	280.1
60°	280.7	275.4	264.6	256.5	253.1
62.5°	253.1	247.8	237.7	229.6	226.2
65°	225.5	220.8	211.4	202.7	200.0
67.5°	200.0	193.9	185.1	177.1	173.7
70°	173.0	166.3	158.9	152.2	148.8
72.5°	146.1	140.7	134.7	127.9	126.6
75°	119.8	114.5	109.1	104.4	102.3
77.5°	94.9	90.9	86.9	82.1	80.8
80°	70.0	67.3	64.6	61.3	59.9
82.5°	49.1	47.1	43.1	40.4	39.0
85°	30.3	28.3	24.9	21.5	20.9
87.5°	14.1	11.4	8.8	7.4	6.7
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)