

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: P242939

Luminaire Tested: **S121DR-H490D927-X4F0-XX-UDD-F-W**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P242939
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-H490D927-X4F0-XX-UDD-F-W
Description: DEFINE 1 DIRECT RECESSED WITH SATIN FLUSH DIFFUSER.
HIGH PERFORMANCE LIGHT ENGINE
Light Source: (184) 2700K CCT, 90 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 1445.7 lumens
Efficiency: N/A
Efficacy: 84.1 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

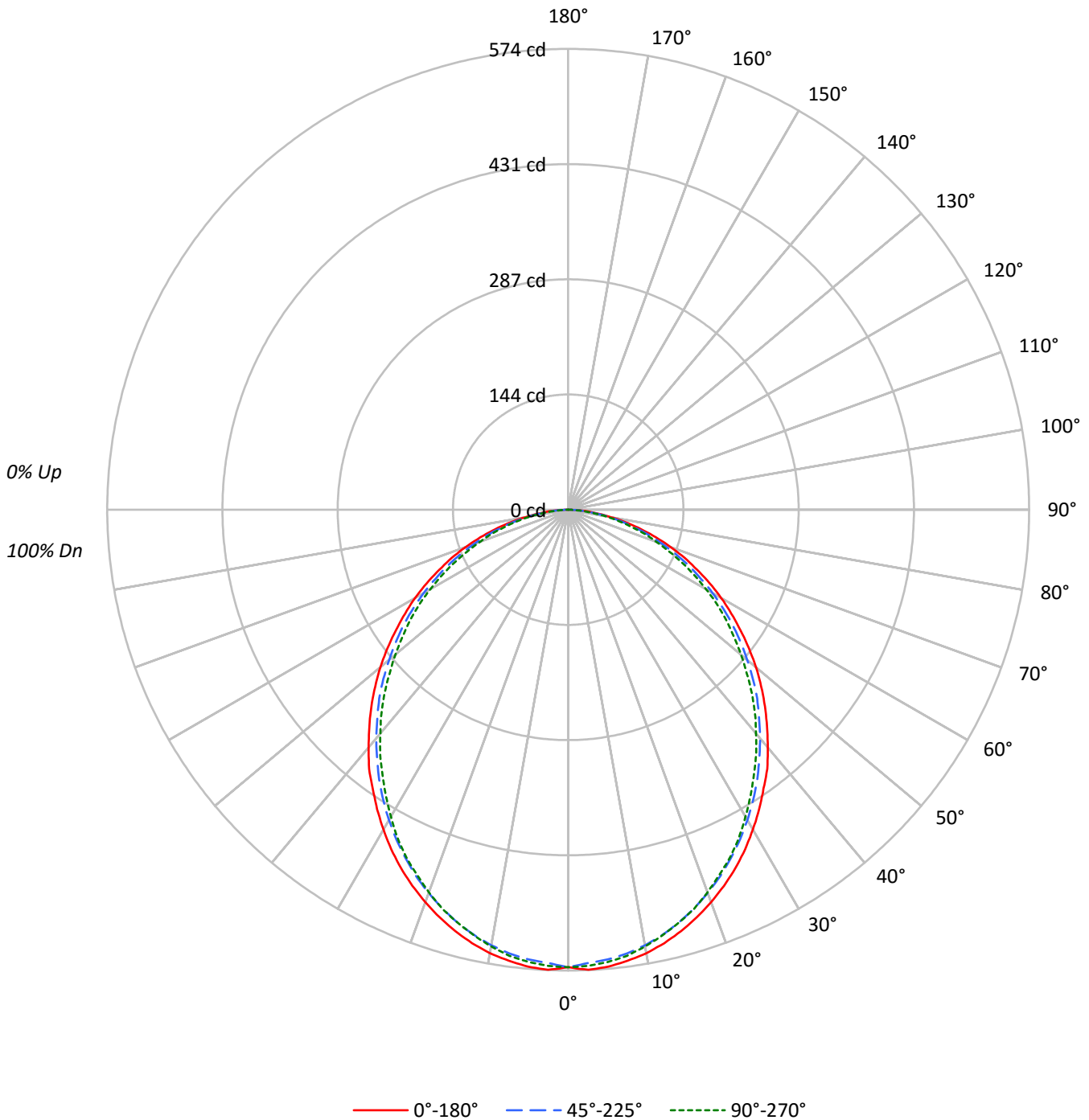
Input Watts (W): 17.2
Input Voltage (V): 120
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	80	72	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°	16886	16886	16886
5°	16995	16730	16823
10°	16876	16572	16620
15°	16669	16331	16331
20°	16403	16021	15986
25°	16108	15660	15608
30°	15738	15269	15105
35°	15340	14845	14577
40°	14953	14381	14075
45°	14519	13941	13543
50°	14073	13414	12953
55°	13534	12904	12413
60°	13049	12302	11769
65°	12402	11624	11000
70°	11756	10794	10110
75°	10761	9800	9193
80°	9368	8651	8020
85°	8091	6629	5575



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	53.7	3.7
10°-20°	151.1	10.5
20°-30°	222.1	15.4
30°-40°	257.8	17.8
40°-50°	257.1	17.8
50°-60°	223.8	15.5
60°-70°	164.7	11.4
70°-80°	91.8	6.3
80°-90°	23.6	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°	426.9	29.5
0°-40°	684.7	47.4
0°-60°	1165.6	80.6
0°-90°	1445.7	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1445.7	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	570	570	570	570	570	
5°	571	568	562	567	566	54
15°	543	540	532	534	532	153
25°	493	487	479	479	477	227
35°	424	419	410	406	403	266
45°	346	341	333	326	323	267
55°	262	257	250	243	240	235
65°	177	173	166	159	157	176
75°	94	90	86	82	80	100
85°	24	22	20	17	16	27
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	569.9	569.9	569.9	569.9	569.9
2.5°	573.6	570.4	565.1	569.9	568.8
5°	571.4	568.3	562.5	566.7	565.6
7.5°	566.7	564.0	557.7	561.4	560.4
10°	560.9	557.7	550.8	554.0	552.4
12.5°	553.0	550.3	542.4	545.0	542.9
15°	543.4	540.3	532.4	534.5	532.4
17.5°	532.4	529.2	520.7	522.3	521.3
20°	520.2	516.0	508.1	509.1	507.0
22.5°	507.0	502.3	494.3	494.3	492.2
25°	492.7	486.9	479.0	479.0	477.4
27.5°	476.9	471.6	463.2	462.1	460.5
30°	460.0	454.7	446.3	444.2	441.5
32.5°	442.6	436.8	428.8	425.1	422.5
35°	424.1	418.8	410.4	405.6	403.0
37.5°	407.2	399.8	390.8	386.6	384.5
40°	386.6	380.3	371.8	366.0	363.9
42.5°	366.5	360.7	351.7	345.9	344.3
45°	346.5	340.6	332.7	325.9	323.2
47.5°	325.9	320.0	312.1	305.3	301.6
50°	305.3	299.5	291.0	284.1	281.0
52.5°	283.6	279.4	270.4	264.1	259.8
55°	262.0	257.2	249.8	242.9	240.3
57.5°	240.8	236.6	228.7	221.3	219.7
60°	220.2	216.0	207.6	201.2	198.6
62.5°	198.6	194.4	186.4	180.1	177.5
65°	176.9	173.2	165.8	159.0	156.9
67.5°	156.9	152.1	145.2	138.9	136.3
70°	135.7	130.4	124.6	119.4	116.7
72.5°	114.6	110.4	105.6	100.3	99.3
75°	94.0	89.8	85.6	81.9	80.3
77.5°	74.5	71.3	68.1	64.4	63.4
80°	54.9	52.8	50.7	48.1	47.0
82.5°	38.6	37.0	33.8	31.7	30.6
85°	23.8	22.2	19.5	16.9	16.4
87.5°	11.1	9.0	6.9	5.8	5.3
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)