

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: P242949

Luminaire Tested: **S121DR-H490D835-X4F0-XX-UDD-F-W**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P242949
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-H490D835-X4F0-XX-UDD-F-W
Description: DEFINE 1 DIRECT RECESSED WITH SATIN FLUSH DIFFUSER.
HIGH PERFORMANCE LIGHT ENGINE
Light Source: (184) 3500K CCT, 80 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 1824.9 lumens
Efficiency: N/A
Efficacy: 106.1 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

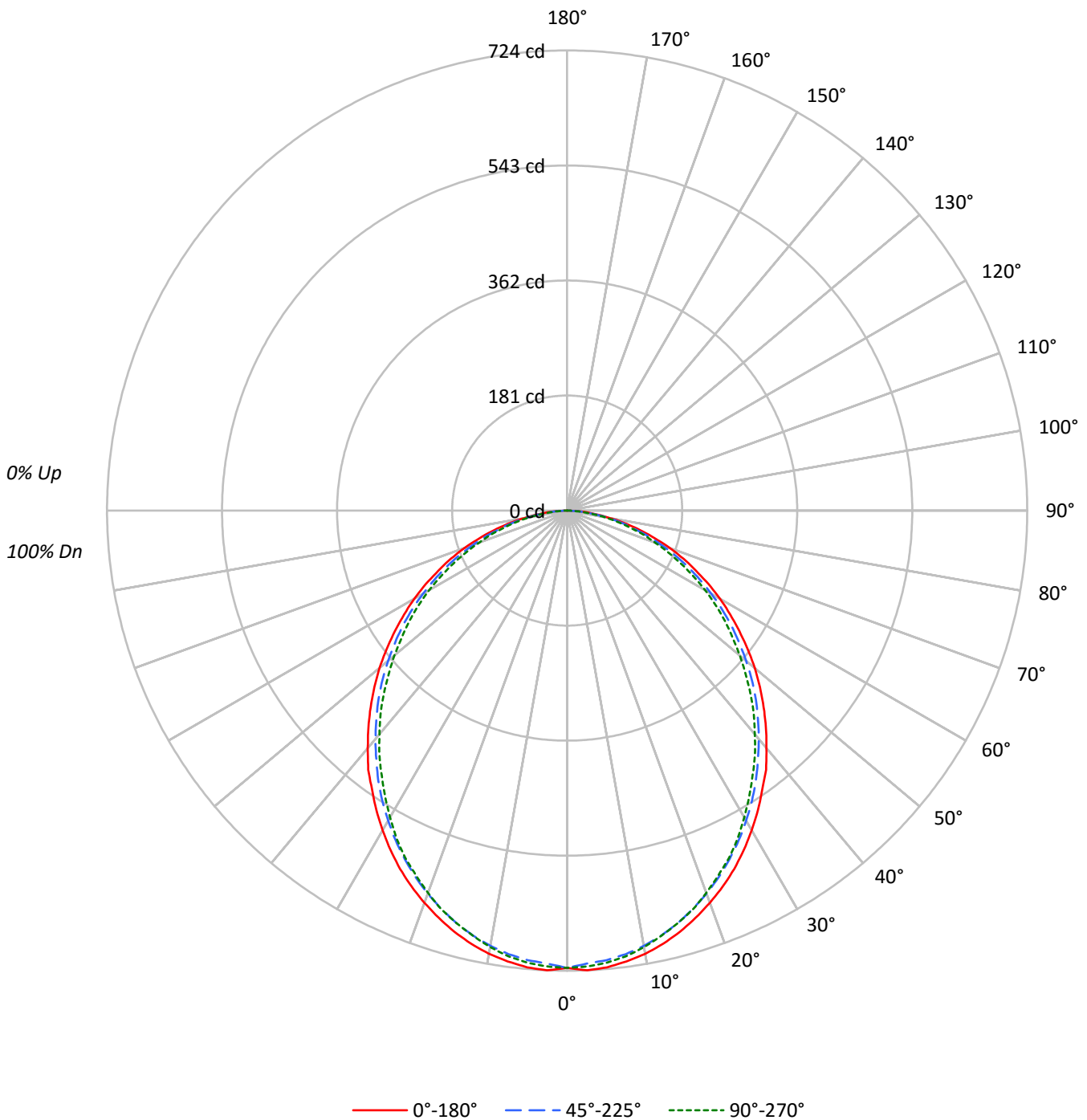
Input Watts (W): 17.2
Input Voltage (V): 120
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	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°	21316	21316	21316
5°	21457	21117	21236
10°	21301	20919	20980
15°	21043	20614	20614
20°	20707	20221	20180
25°	20335	19769	19704
30°	19868	19272	19067
35°	19362	18737	18400
40°	18875	18152	17765
45°	18324	17599	17096
50°	17761	16931	16350
55°	17083	16288	15668
60°	16474	15526	14856
65°	15656	14674	13882
70°	14840	13627	12761
75°	13589	12364	11597
80°	11825	10920	10118
85°	10199	8397	7037



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	67.8	3.7
10°-20°	190.7	10.5
20°-30°	280.4	15.4
30°-40°	325.4	17.8
40°-50°	324.5	17.8
50°-60°	282.5	15.5
60°-70°	208.0	11.4
70°-80°	115.8	6.3
80°-90°	29.8	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°	538.9	29.5
0°-40°	864.3	47.4
0°-60°	1471.4	80.6
0°-90°	1824.9	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1824.9	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	719	719	719	719	719	
5°	721	717	710	715	714	68
15°	686	682	672	675	672	193
25°	622	615	605	605	603	286
35°	535	529	518	512	509	335
45°	437	430	420	411	408	337
55°	331	325	315	307	303	296
65°	223	219	209	201	198	222
75°	119	113	108	103	101	126
85°	30	28	25	21	21	35
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	719.4	719.4	719.4	719.4	719.4
2.5°	724.0	720.0	713.4	719.4	718.0
5°	721.4	717.4	710.0	715.4	714.0
7.5°	715.4	712.0	704.0	708.7	707.4
10°	708.0	704.0	695.3	699.3	697.3
12.5°	698.0	694.7	684.7	688.0	685.3
15°	686.0	682.0	672.0	674.7	672.0
17.5°	672.0	668.0	657.3	659.3	658.0
20°	656.7	651.3	641.3	642.7	640.0
22.5°	640.0	634.0	624.0	624.0	621.3
25°	622.0	614.7	604.7	604.7	602.7
27.5°	602.0	595.3	584.7	583.3	581.3
30°	580.7	574.0	563.3	560.7	557.3
32.5°	558.7	551.3	541.3	536.7	533.3
35°	535.3	528.7	518.0	512.0	508.7
37.5°	514.0	504.7	493.3	488.0	485.3
40°	488.0	480.0	469.3	462.0	459.3
42.5°	462.7	455.3	444.0	436.7	434.7
45°	437.3	430.0	420.0	411.3	408.0
47.5°	411.3	404.0	394.0	385.3	380.7
50°	385.3	378.0	367.3	358.7	354.7
52.5°	358.0	352.7	341.3	333.3	328.0
55°	330.7	324.7	315.3	306.7	303.3
57.5°	304.0	298.7	288.7	279.3	277.3
60°	278.0	272.7	262.0	254.0	250.7
62.5°	250.7	245.3	235.3	227.3	224.0
65°	223.3	218.7	209.3	200.7	198.0
67.5°	198.0	192.0	183.3	175.3	172.0
70°	171.3	164.7	157.3	150.7	147.3
72.5°	144.7	139.3	133.3	126.7	125.3
75°	118.7	113.3	108.0	103.3	101.3
77.5°	94.0	90.0	86.0	81.3	80.0
80°	69.3	66.7	64.0	60.7	59.3
82.5°	48.7	46.7	42.7	40.0	38.7
85°	30.0	28.0	24.7	21.3	20.7
87.5°	14.0	11.3	8.7	7.3	6.7
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)