

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: P242083

Luminaire Tested: **S121DR-S305D830-X4F0-XX-UDD-F-W**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P242083
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1802-639-9)
Test Lab: INNOVATION CENTER
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: NEO-RAY
Catalog Number: S121DR-S305D830-X4F0-XX-UDD-F-W
Description: DEFINE 1 DIRECT RECESSED WITH SATIN FLUSH DIFFUSER
STANDARD LIGHT ENGINE
Light Source: (92) 3000K CCT, 80 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 1131.8 lumens
Efficiency: N/A
Efficacy: 97.6 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

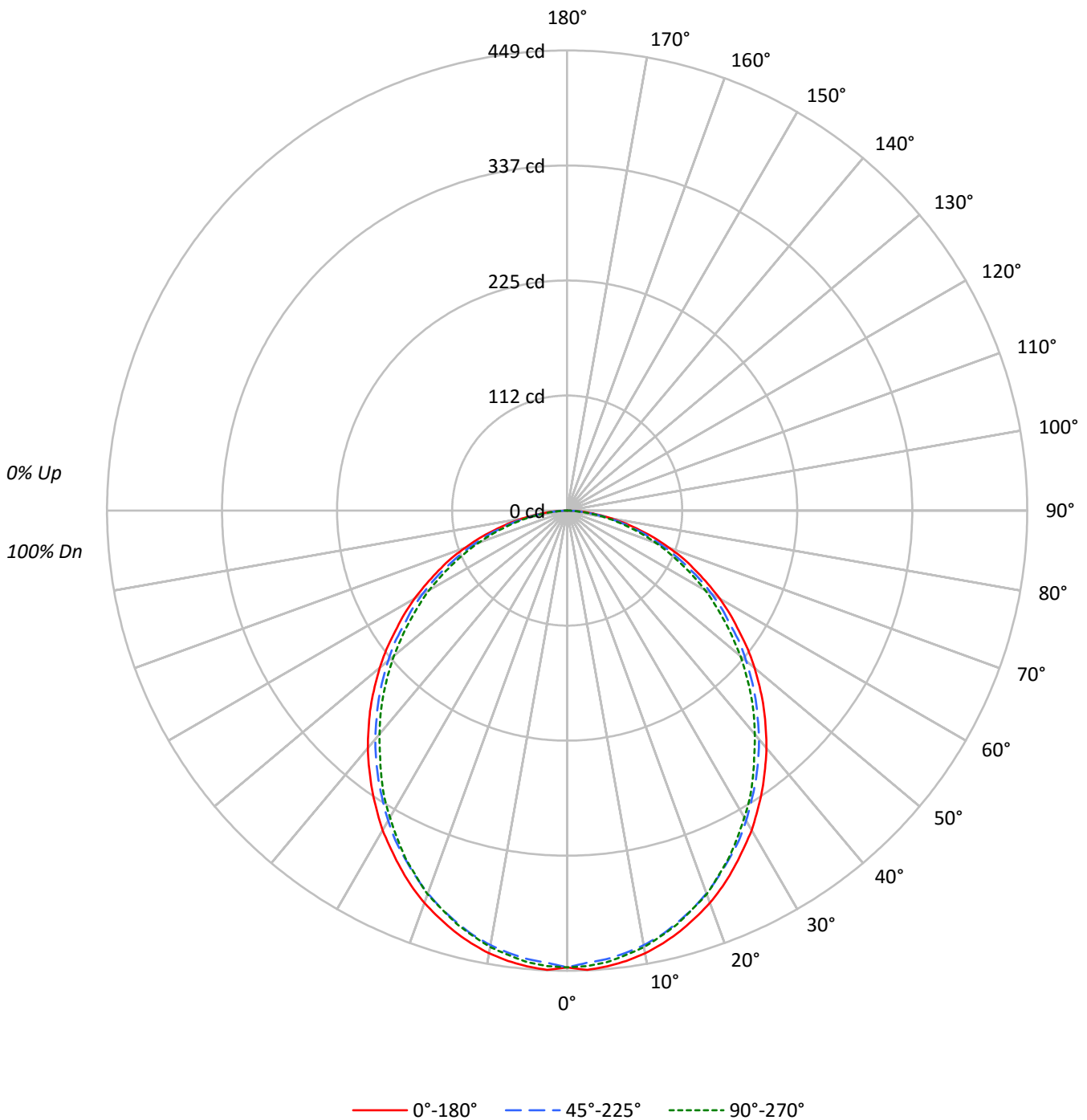
Input Watts (W): 11.6
Input Voltage (V): 120
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	96	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	71	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°	13206	13206	13206
5°	13280	13072	13158
10°	13199	12952	13013
15°	13040	12764	12801
20°	12846	12534	12562
25°	12580	12243	12217
30°	12320	11954	11828
35°	12012	11611	11434
40°	11700	11271	11016
45°	11364	10899	10622
50°	11003	10510	10169
55°	10564	10032	9670
60°	10193	9659	9221
65°	9696	9058	8595
70°	9131	8447	7987
75°	8391	7682	7166
80°	7439	6740	6245
85°	6153	5031	4488



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	42.0	3.7
10°-20°	118.2	10.4
20°-30°	173.8	15.4
30°-40°	201.8	17.8
40°-50°	201.4	17.8
50°-60°	175.2	15.5
60°-70°	129.1	11.4
70°-80°	71.9	6.4
80°-90°	18.5	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°	334.0	29.5
0°-40°	535.8	47.3
0°-60°	912.4	80.6
0°-90°	1131.8	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1131.8	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	446	446	446	446	446	
5°	446	444	440	443	442	42
15°	425	422	416	419	417	120
25°	385	381	374	375	374	177
35°	332	328	321	318	316	208
45°	271	267	260	255	254	209
55°	204	202	194	190	187	183
65°	138	135	129	125	123	137
75°	73	71	67	64	63	78
85°	18	17	15	14	13	21
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	445.7	445.7	445.7	445.7	445.7
2.5°	448.6	446.1	441.6	445.3	444.9
5°	446.5	444.5	439.5	443.2	442.4
7.5°	443.2	440.8	435.4	438.7	437.5
10°	438.7	436.2	430.5	432.9	432.5
12.5°	432.5	429.6	424.3	426.4	425.1
15°	425.1	421.8	416.1	418.9	417.3
17.5°	416.5	412.8	407.4	409.1	407.4
20°	407.4	403.3	397.5	399.2	398.4
22.5°	396.7	393.0	386.4	387.3	385.6
25°	384.8	380.7	374.5	375.3	373.7
27.5°	372.4	368.7	363.0	361.7	359.7
30°	360.1	355.6	349.4	347.7	345.7
32.5°	346.1	342.0	335.0	333.3	332.1
35°	332.1	328.0	321.0	317.7	316.1
37.5°	317.3	313.2	306.2	302.5	300.0
40°	302.5	298.0	291.4	287.7	284.8
42.5°	286.8	282.7	275.3	271.6	269.6
45°	271.2	266.7	260.1	255.2	253.5
47.5°	254.7	250.6	244.0	238.7	237.0
50°	238.7	234.2	228.0	222.6	220.6
52.5°	222.2	218.1	212.4	207.0	203.7
55°	204.5	202.1	194.2	190.5	187.2
57.5°	188.5	185.6	179.4	173.3	171.2
60°	172.0	168.7	163.0	157.6	155.6
62.5°	154.7	152.3	146.5	141.6	138.7
65°	138.3	135.4	129.2	125.1	122.6
67.5°	123.0	119.3	113.2	109.1	107.0
70°	105.4	102.5	97.5	94.2	92.2
72.5°	90.1	86.8	82.3	79.0	77.0
75°	73.3	71.2	67.1	64.2	62.6
77.5°	58.4	55.6	52.7	50.6	49.4
80°	43.6	41.6	39.5	37.4	36.6
82.5°	30.5	28.8	26.7	25.5	24.3
85°	18.1	17.3	14.8	14.0	13.2
87.5°	8.6	7.4	4.9	4.5	4.1
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)