

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: P242092

Luminaire Tested: **S121DR-S305D840-X4F0-XX-UDD-F-W**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P242092
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-S305D840-X4F0-XX-UDD-F-W
Description: DEFINE 1 DIRECT RECESSED WITH SATIN FLUSH DIFFUSER
STANDARD LIGHT ENGINE
Light Source: (92) 4000K CCT, 80 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 1212.7 lumens
Efficiency: N/A
Efficacy: 104.5 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

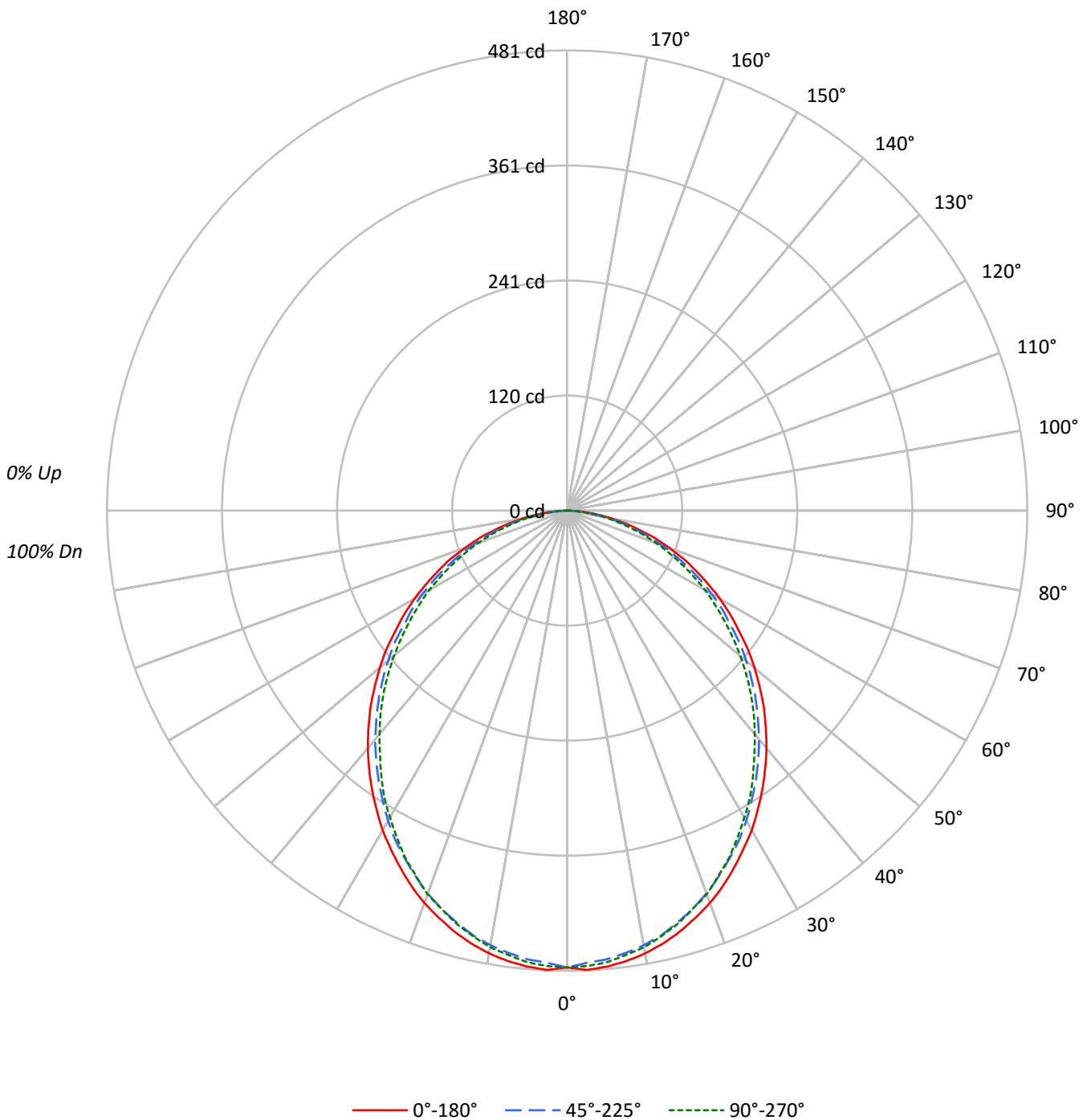
Input Watts (W): 11.6
Input Voltage (V): 120
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	14148	14148	14148
5°	14229	14006	14098
10°	14141	13876	13942
15°	13972	13675	13715
20°	13763	13429	13458
25°	13479	13116	13090
30°	13200	12810	12673
35°	12870	12439	12248
40°	12536	12076	11801
45°	12177	11678	11381
50°	11787	11261	10892
55°	11318	10750	10363
60°	10922	10347	9879
65°	10390	9710	9212
70°	9781	9053	8559
75°	8987	8231	7670
80°	7968	7218	6689
85°	6595	5405	4793



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	45.0	3.7
10°-20°	126.6	10.4
20°-30°	186.2	15.4
30°-40°	216.2	17.8
40°-50°	215.7	17.8
50°-60°	187.7	15.5
60°-70°	138.3	11.4
70°-80°	77.0	6.4
80°-90°	19.9	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°	357.8	29.5
0°-40°	574.1	47.3
0°-60°	977.5	80.6
0°-90°	1212.7	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1212.7	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	478	478	478	478	478	
5°	478	476	471	475	474	45
15°	456	452	446	449	447	128
25°	412	408	401	402	400	190
35°	356	351	344	340	339	222
45°	291	286	279	273	272	224
55°	219	216	208	204	201	197
65°	148	145	138	134	131	147
75°	78	76	72	69	67	84
85°	19	18	16	15	14	23
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	477.5	477.5	477.5	477.5	477.5
2.5°	480.6	478.0	473.1	477.1	476.6
5°	478.4	476.2	470.9	474.9	474.0
7.5°	474.9	472.2	466.5	470.0	468.7
10°	470.0	467.4	461.2	463.9	463.4
12.5°	463.4	460.3	454.6	456.8	455.5
15°	455.5	452.0	445.8	448.9	447.1
17.5°	446.2	442.3	436.5	438.3	436.5
20°	436.5	432.1	425.9	427.7	426.8
22.5°	425.1	421.1	414.0	414.9	413.2
25°	412.3	407.9	401.2	402.1	400.4
27.5°	399.0	395.1	388.9	387.6	385.4
30°	385.8	381.0	374.4	372.6	370.4
32.5°	370.8	366.4	358.9	357.2	355.8
35°	355.8	351.4	343.9	340.4	338.6
37.5°	340.0	335.5	328.1	324.1	321.4
40°	324.1	319.2	312.2	308.2	305.1
42.5°	307.3	302.9	295.0	291.0	288.8
45°	290.6	285.7	278.7	273.4	271.6
47.5°	272.9	268.5	261.5	255.7	254.0
50°	255.7	250.9	244.3	238.5	236.3
52.5°	238.1	233.7	227.5	221.8	218.3
55°	219.1	216.5	208.1	204.2	200.6
57.5°	201.9	198.9	192.2	185.6	183.4
60°	184.3	180.8	174.6	168.9	166.7
62.5°	165.8	163.1	157.0	151.7	148.6
65°	148.2	145.1	138.5	134.0	131.4
67.5°	131.8	127.9	121.3	116.8	114.6
70°	112.9	109.8	104.5	101.0	98.8
72.5°	96.6	93.0	88.2	84.7	82.5
75°	78.5	76.3	71.9	68.8	67.0
77.5°	62.6	59.5	56.4	54.2	52.9
80°	46.7	44.5	42.3	40.1	39.2
82.5°	32.6	30.9	28.7	27.3	26.0
85°	19.4	18.5	15.9	15.0	14.1
87.5°	9.3	7.9	5.3	4.9	4.4
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)