

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: P242088

Luminaire Tested: **S121DR-S305D835-X4F0-XX-UDD-F-W**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P242088
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-S305D835-X4F0-XX-UDD-F-W
Description: DEFINE 1 DIRECT RECESSED WITH SATIN FLUSH DIFFUSER
STANDARD LIGHT ENGINE
Light Source: (92) 3500K CCT, 80 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 1200.8 lumens
Efficiency: N/A
Efficacy: 103.5 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

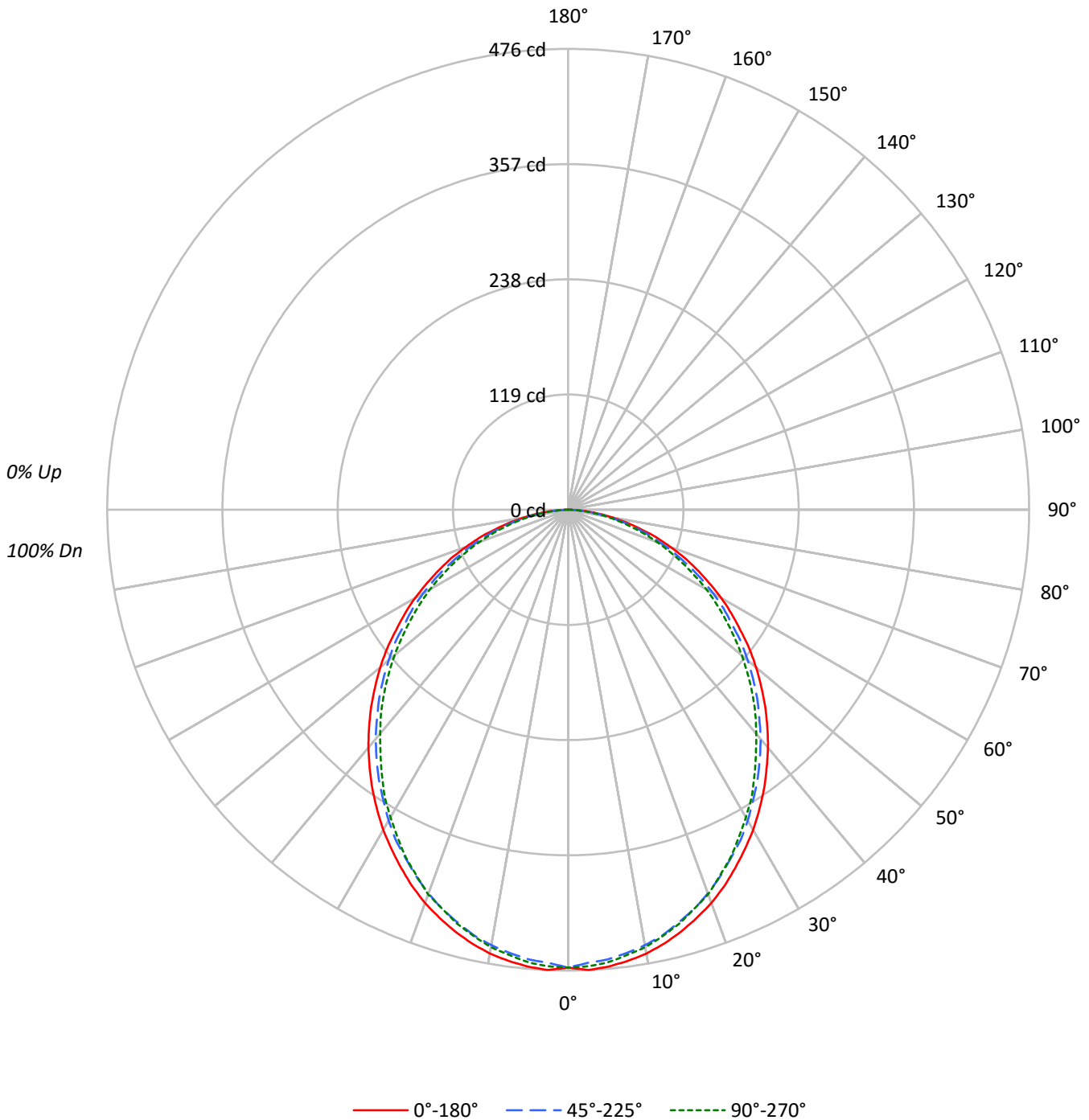
Input Watts (W): 11.6
Input Voltage (V): 120
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	14012	14012	14012
5°	14089	13869	13961
10°	14002	13741	13807
15°	13834	13540	13580
20°	13631	13300	13328
25°	13345	12989	12963
30°	13070	12683	12549
35°	12747	12320	12128
40°	12412	11956	11685
45°	12055	11561	11272
50°	11671	11151	10786
55°	11210	10647	10264
60°	10815	10246	9778
65°	10285	9612	9121
70°	9685	8966	8473
75°	8895	8151	7601
80°	7900	7149	6638
85°	6527	5337	4759



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	44.5	3.7
10°-20°	125.4	10.4
20°-30°	184.4	15.4
30°-40°	214.1	17.8
40°-50°	213.6	17.8
50°-60°	185.9	15.5
60°-70°	136.9	11.4
70°-80°	76.3	6.4
80°-90°	19.7	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°	354.3	29.5
0°-40°	568.4	47.3
0°-60°	968.0	80.6
0°-90°	1200.8	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1200.8	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	473	473	473	473	473	
5°	474	472	466	470	469	45
15°	451	448	441	444	443	127
25°	408	404	397	398	396	188
35°	352	348	341	337	335	220
45°	288	283	276	271	269	222
55°	217	214	206	202	199	195
65°	147	144	137	133	130	146
75°	78	76	71	68	66	83
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°	472.9	472.9	472.9	472.9	472.9
2.5°	475.9	473.3	468.5	472.4	472.0
5°	473.7	471.6	466.3	470.2	469.4
7.5°	470.2	467.6	461.9	465.4	464.1
10°	465.4	462.8	456.7	459.3	458.9
12.5°	458.9	455.8	450.2	452.3	451.0
15°	451.0	447.5	441.4	444.5	442.7
17.5°	441.9	437.9	432.3	434.0	432.3
20°	432.3	427.9	421.8	423.5	422.7
22.5°	420.9	417.0	410.0	410.9	409.1
25°	408.2	403.9	397.3	398.2	396.5
27.5°	395.1	391.2	385.1	383.8	381.6
30°	382.0	377.2	370.7	368.9	366.8
32.5°	367.2	362.8	355.4	353.7	352.4
35°	352.4	348.0	340.6	337.1	335.3
37.5°	336.6	332.3	324.8	320.9	318.3
40°	320.9	316.1	309.1	305.2	302.1
42.5°	304.3	300.0	292.1	288.2	286.0
45°	287.7	282.9	275.9	270.7	269.0
47.5°	270.3	265.9	258.9	253.2	251.5
50°	253.2	248.4	241.9	236.2	234.0
52.5°	235.8	231.4	225.3	219.6	216.1
55°	217.0	214.4	206.1	202.2	198.7
57.5°	200.0	196.9	190.4	183.8	181.6
60°	182.5	179.0	172.9	167.2	165.0
62.5°	164.2	161.6	155.4	150.2	147.1
65°	146.7	143.6	137.1	132.7	130.1
67.5°	130.6	126.6	120.1	115.7	113.5
70°	111.8	108.7	103.5	100.0	97.8
72.5°	95.6	92.1	87.3	83.8	81.6
75°	77.7	75.5	71.2	68.1	66.4
77.5°	62.0	58.9	55.9	53.7	52.4
80°	46.3	44.1	41.9	39.7	38.9
82.5°	32.3	30.6	28.4	27.1	25.8
85°	19.2	18.3	15.7	14.8	14.0
87.5°	9.2	7.9	5.2	4.8	4.4
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)