

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: P242962

Luminaire Tested: **S121DR-H305D935-X4F0-XX-UDD-F-W**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P242962
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-H305D935-X4F0-XX-UDD-F-W
Description: DEFINE 1 DIRECT RECESSED WITH SATIN FLUSH DIFFUSER.
HIGH PERFORMANCE LIGHT ENGINE
Light Source: (184) 3500K CCT, 90 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 986.7 lumens
Efficiency: N/A
Efficacy: 88.1 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

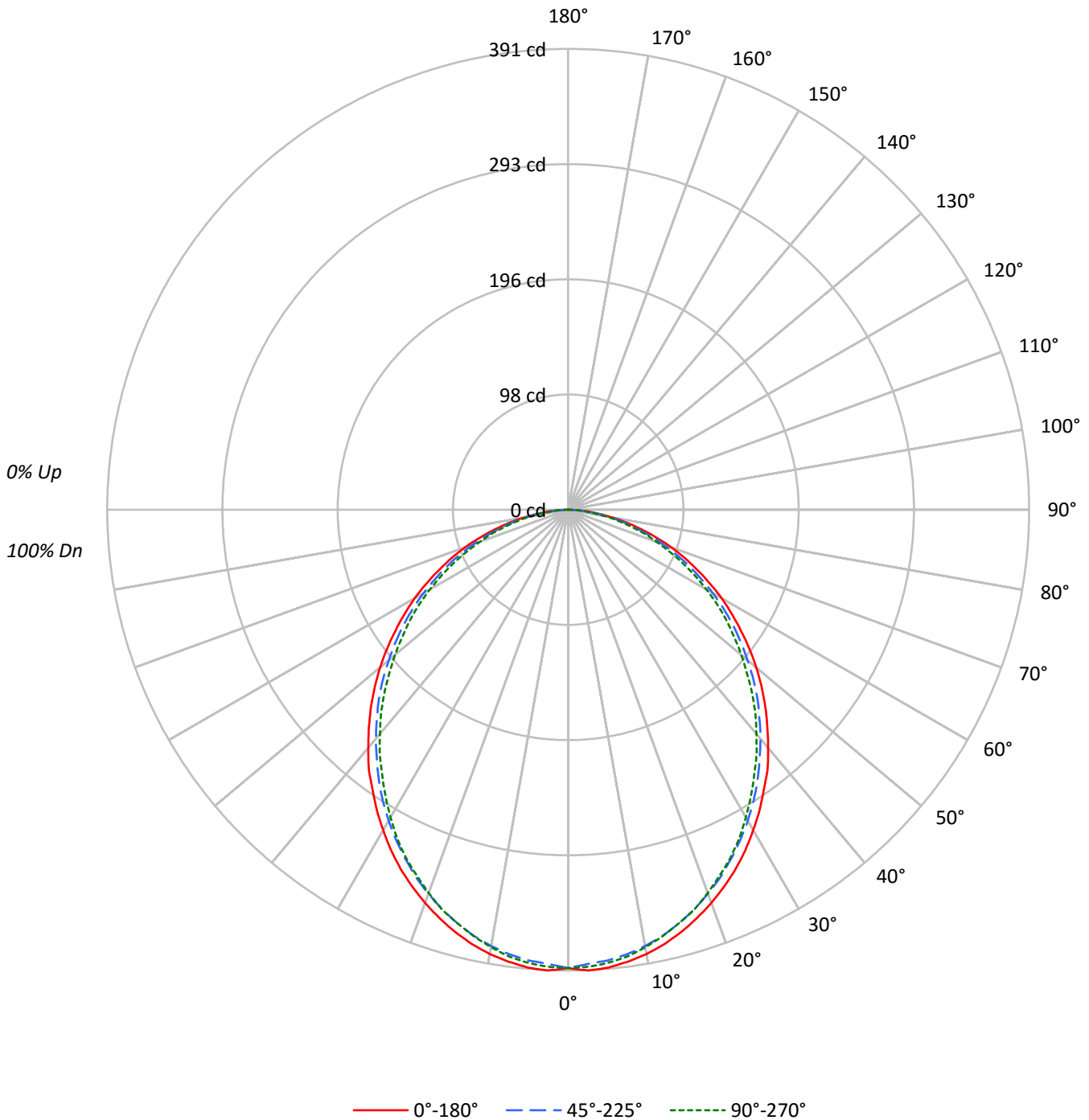
Input Watts (W): 11.2
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	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°	11523	11523	11523
5°	11600	11418	11481
10°	11517	11310	11343
15°	11377	11144	11144
20°	11194	10932	10910
25°	10995	10687	10651
30°	10740	10421	10309
35°	10468	10132	9947
40°	10203	9817	9604
45°	9910	9516	9244
50°	9602	9155	8841
55°	9236	8808	8472
60°	8907	8397	8030
65°	8462	7936	7509
70°	8022	7372	6905
75°	7350	6686	6274
80°	6399	5904	5477
85°	5507	4522	3808



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	36.6	3.7
10°-20°	103.1	10.5
20°-30°	151.6	15.4
30°-40°	175.9	17.8
40°-50°	175.5	17.8
50°-60°	152.8	15.5
60°-70°	112.4	11.4
70°-80°	62.6	6.3
80°-90°	16.1	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°	291.4	29.5
0°-40°	467.3	47.4
0°-60°	795.5	80.6
0°-90°	986.7	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	986.7	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	389	389	389	389	389	
5°	390	388	384	387	386	37
15°	371	369	363	365	363	105
25°	336	332	327	327	326	155
35°	289	286	280	277	275	181
45°	236	232	227	222	221	182
55°	179	176	170	166	164	160
65°	121	118	113	108	107	120
75°	64	61	58	56	55	68
85°	16	15	13	12	11	19
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	388.9	388.9	388.9	388.9	388.9
2.5°	391.4	389.3	385.7	388.9	388.2
5°	390.0	387.8	383.9	386.8	386.0
7.5°	386.8	385.0	380.6	383.1	382.4
10°	382.8	380.6	375.9	378.1	377.0
12.5°	377.4	375.6	370.2	372.0	370.5
15°	370.9	368.7	363.3	364.8	363.3
17.5°	363.3	361.2	355.4	356.5	355.8
20°	355.0	352.2	346.7	347.5	346.0
22.5°	346.0	342.8	337.4	337.4	335.9
25°	336.3	332.3	326.9	326.9	325.8
27.5°	325.5	321.9	316.1	315.4	314.3
30°	313.9	310.3	304.6	303.1	301.3
32.5°	302.1	298.1	292.7	290.2	288.4
35°	289.4	285.8	280.1	276.8	275.0
37.5°	277.9	272.9	266.7	263.8	262.4
40°	263.8	259.5	253.8	249.8	248.3
42.5°	250.1	246.2	240.1	236.1	235.0
45°	236.5	232.5	227.1	222.4	220.6
47.5°	222.4	218.4	213.0	208.3	205.8
50°	208.3	204.4	198.6	193.9	191.8
52.5°	193.6	190.7	184.5	180.2	177.3
55°	178.8	175.5	170.5	165.8	164.0
57.5°	164.4	161.5	156.1	151.0	149.9
60°	150.3	147.4	141.7	137.3	135.5
62.5°	135.5	132.6	127.2	122.9	121.1
65°	120.7	118.2	113.2	108.5	107.1
67.5°	107.1	103.8	99.1	94.8	93.0
70°	92.6	89.0	85.1	81.5	79.7
72.5°	78.2	75.3	72.1	68.5	67.8
75°	64.2	61.3	58.4	55.9	54.8
77.5°	50.8	48.7	46.5	44.0	43.3
80°	37.5	36.0	34.6	32.8	32.1
82.5°	26.3	25.2	23.1	21.6	20.9
85°	16.2	15.1	13.3	11.5	11.2
87.5°	7.6	6.1	4.7	4.0	3.6
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)