

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: P242943

Luminaire Tested: **S121DR-H305D830-X4F0-XX-UDD-F-W**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P242943
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-H305D830-X4F0-XX-UDD-F-W
Description: DEFINE 1 DIRECT RECESSED WITH SATIN FLUSH DIFFUSER.
HIGH PERFORMANCE LIGHT ENGINE
Light Source: (184) 3000K CCT, 80 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 1080.1 lumens
Efficiency: N/A
Efficacy: 96.4 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

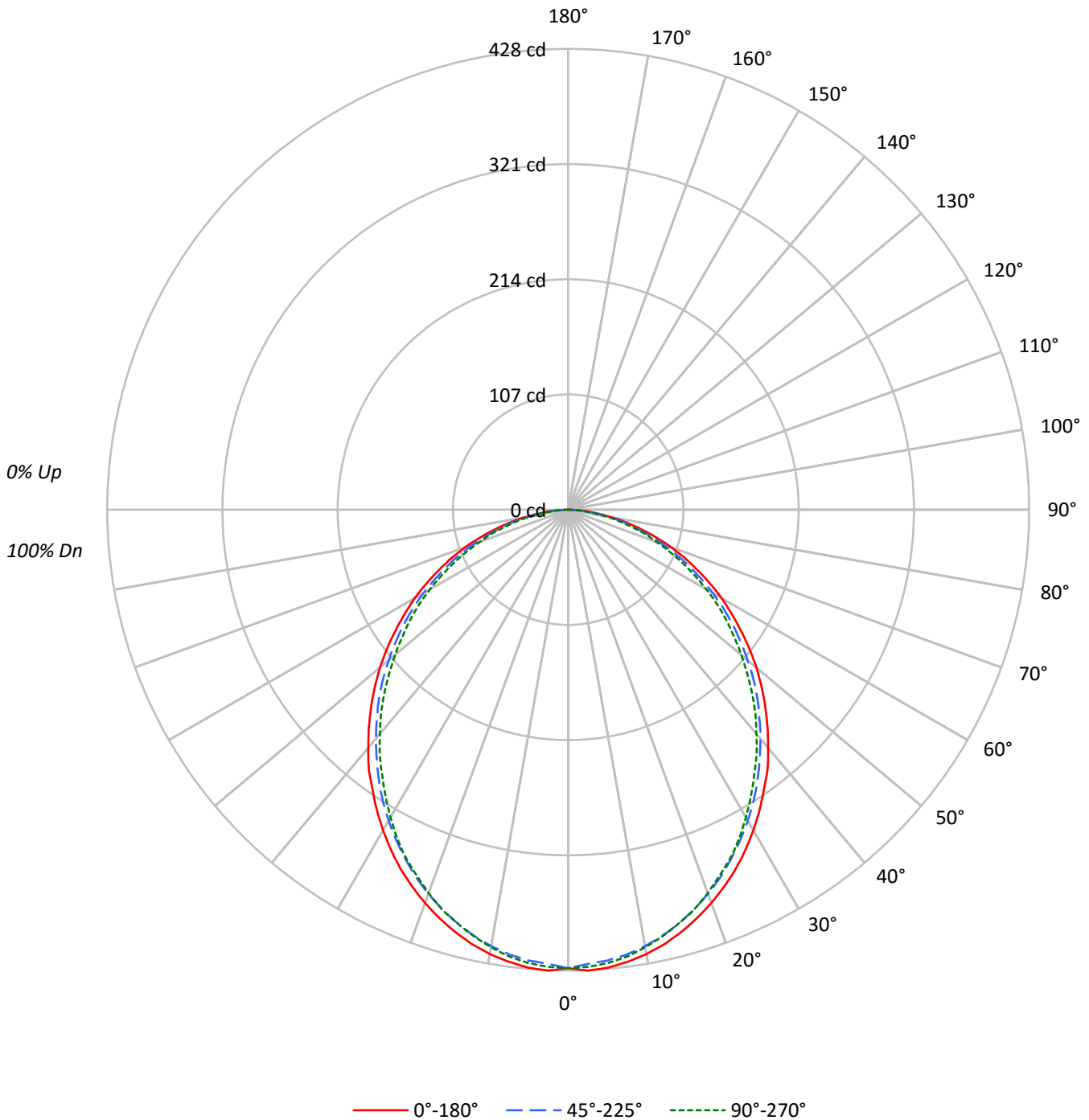
Input Watts (W): 11.2
Input Voltage (V): 120
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	80	72	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°	12616	12616	12616
5°	12697	12498	12569
10°	12606	12381	12417
15°	12454	12199	12199
20°	12256	11969	11944
25°	12034	11701	11662
30°	11759	11407	11287
35°	11459	11090	10891
40°	11170	10745	10517
45°	10844	10417	10120
50°	10514	10021	9675
55°	10109	9639	9273
60°	9748	9191	8794
65°	9269	8687	8217
70°	8784	8065	7554
75°	8037	7315	6869
80°	6996	6467	5989
85°	6051	4963	4148



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	40.1	3.7
10°-20°	112.9	10.5
20°-30°	166.0	15.4
30°-40°	192.6	17.8
40°-50°	192.1	17.8
50°-60°	167.2	15.5
60°-70°	123.1	11.4
70°-80°	68.6	6.3
80°-90°	17.6	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°	318.9	29.5
0°-40°	511.5	47.4
0°-60°	870.8	80.6
0°-90°	1080.1	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1080.1	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	426	426	426	426	426	
5°	427	425	420	423	423	40
15°	406	404	398	399	398	114
25°	368	364	358	358	357	169
35°	317	313	307	303	301	198
45°	259	254	249	244	242	200
55°	196	192	187	182	180	175
65°	132	129	124	119	117	131
75°	70	67	64	61	60	75
85°	18	17	15	13	12	21
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	425.8	425.8	425.8	425.8	425.8
2.5°	428.5	426.1	422.2	425.8	425.0
5°	426.9	424.6	420.2	423.4	422.6
7.5°	423.4	421.4	416.7	419.4	418.6
10°	419.0	416.7	411.5	413.9	412.7
12.5°	413.1	411.2	405.2	407.2	405.6
15°	406.0	403.7	397.7	399.3	397.7
17.5°	397.7	395.4	389.1	390.2	389.4
20°	388.7	385.5	379.6	380.4	378.8
22.5°	378.8	375.2	369.3	369.3	367.7
25°	368.1	363.8	357.9	357.9	356.7
27.5°	356.3	352.4	346.0	345.3	344.1
30°	343.7	339.7	333.4	331.8	329.9
32.5°	330.7	326.3	320.4	317.6	315.7
35°	316.8	312.9	306.6	303.0	301.1
37.5°	304.2	298.7	292.0	288.8	287.3
40°	288.8	284.1	277.8	273.4	271.9
42.5°	273.8	269.5	262.8	258.4	257.3
45°	258.8	254.5	248.6	243.5	241.5
47.5°	243.5	239.1	233.2	228.1	225.3
50°	228.1	223.7	217.4	212.3	209.9
52.5°	211.9	208.7	202.0	197.3	194.1
55°	195.7	192.2	186.6	181.5	179.5
57.5°	179.9	176.8	170.9	165.3	164.1
60°	164.5	161.4	155.1	150.3	148.4
62.5°	148.4	145.2	139.3	134.6	132.6
65°	132.2	129.4	123.9	118.8	117.2
67.5°	117.2	113.6	108.5	103.8	101.8
70°	101.4	97.5	93.1	89.2	87.2
72.5°	85.6	82.5	78.9	75.0	74.2
75°	70.2	67.1	63.9	61.2	60.0
77.5°	55.6	53.3	50.9	48.1	47.3
80°	41.0	39.5	37.9	35.9	35.1
82.5°	28.8	27.6	25.3	23.7	22.9
85°	17.8	16.6	14.6	12.6	12.2
87.5°	8.3	6.7	5.1	4.3	3.9
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)