

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: P242191

Luminaire Tested: **S121RDR-S305D835-X4F0-XX-UDD-F-W**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P242191
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1802-639-23)
Test Lab: INNOVATION CENTER
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: NEO-RAY
Catalog Number: S121RDR-S305D835-X4F0-XX-UDD-F-W
Description: DEFINE 1 REGRESSED 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: 976.5 lumens
Efficiency: N/A
Efficacy: 84.2 lumens/watt
Spacing Criteria (0/90/45): 1.21 / 0.92 / 1.09
Luminous Opening: Rectangular (W 0.09' x L: 3.88' x H: 0')
CIE Type: Direct

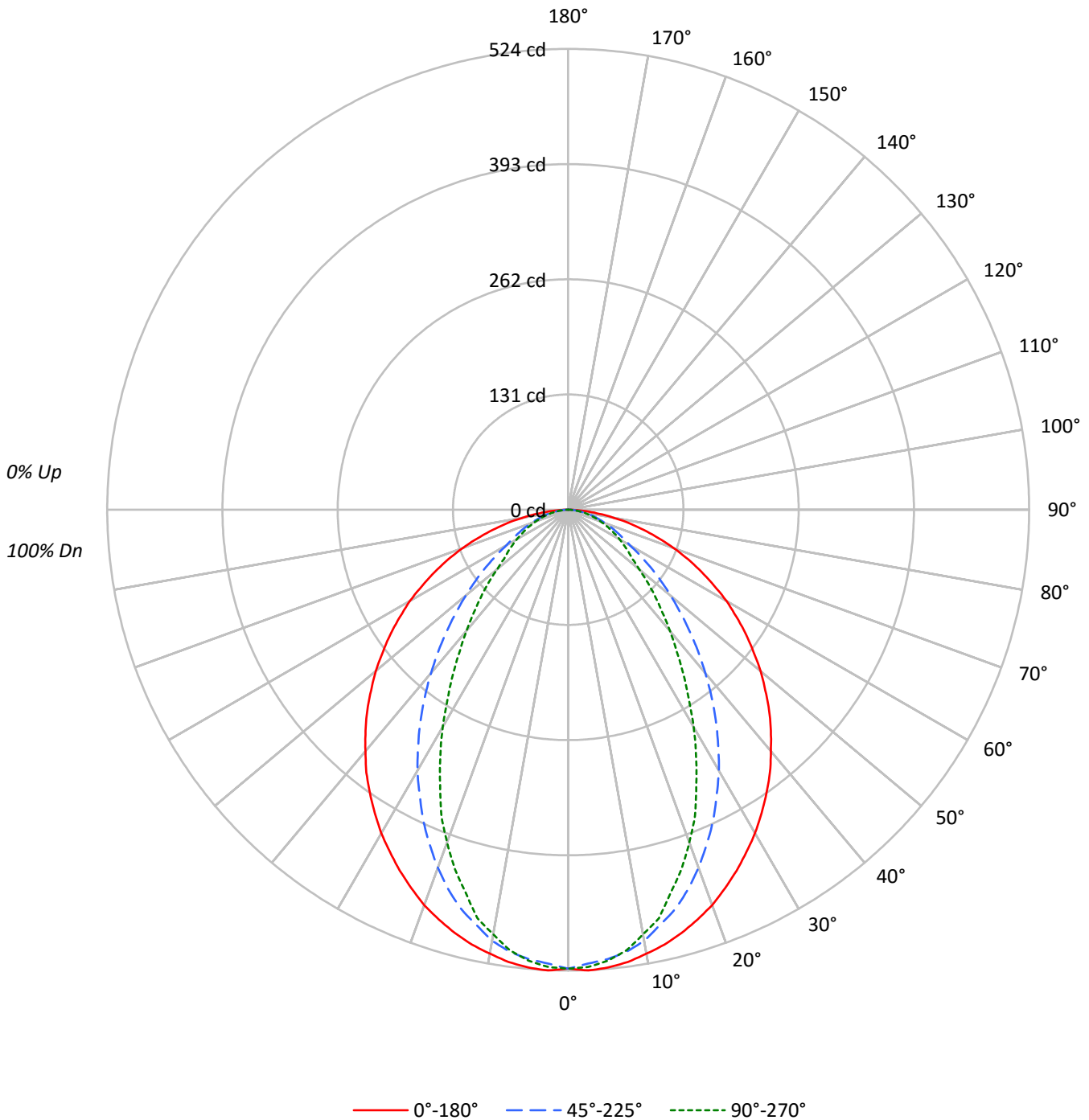
Input Watts (W): 11.6
Input Voltage (V): 120
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	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					100			
1	110	106	102	99	108	104	100	97	100	97	94	96	93	91	92	90	89					87				
2	101	94	88	83	99	92	87	82	89	84	80	86	82	78	83	80	77					75				
3	94	84	77	71	91	83	76	70	80	74	69	77	72	68	75	70	67					65				
4	86	76	68	62	84	74	67	61	72	65	60	70	64	60	68	63	59					57				
5	80	68	60	54	78	67	60	54	65	59	53	63	57	53	62	56	52					50				
6	75	62	54	48	73	61	54	48	60	53	48	58	52	47	57	51	47					45				
7	70	57	49	43	68	56	49	43	55	48	43	53	47	43	52	47	42					40				
8	65	53	45	39	64	52	44	39	51	44	39	49	43	39	48	43	38					37				
9	61	49	41	36	60	48	41	36	47	40	35	46	40	35	45	39	35					33				
10	58	45	38	33	56	45	37	33	44	37	33	43	37	32	42	36	32					31				

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	15461	15461	15461
5°	15544	15258	15312
10°	15422	14977	14752
15°	15282	14423	13822
20°	15088	13656	12694
25°	14803	12747	11263
30°	14534	11725	9754
35°	14215	10580	8261
40°	13866	9372	6958
45°	13539	8179	5875
50°	13165	7002	4849
55°	12744	5910	4329
60°	12314	4788	4012
65°	11722	4319	3702
70°	11046	3898	3405
75°	10143	3549	3148
80°	8873	3123	2832
85°	7275	2686	2380



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	48.8	5.0
10°-20°	132.8	13.6
20°-30°	181.3	18.6
30°-40°	188.5	19.3
40°-50°	164.7	16.9
50°-60°	124.5	12.7
60°-70°	82.2	8.4
70°-80°	42.4	4.3
80°-90°	11.2	1.2
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°	363.0	37.2
0°-40°	551.5	56.5
0°-60°	840.6	86.1
0°-90°	976.5	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	976.5	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	522	522	522	522	522	
5°	523	520	513	517	515	50
15°	498	491	470	458	451	140
25°	453	435	390	358	344	209
35°	393	358	292	244	228	246
45°	323	275	195	152	140	249
55°	247	187	114	87	84	220
65°	167	104	62	54	53	166
75°	89	41	31	28	28	94
85°	21	9	8	7	7	25
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	521.8	521.8	521.8	521.8	521.8
2.5°	524.4	521.8	516.5	521.3	520.5
5°	522.6	519.6	513.0	517.0	514.8
7.5°	518.7	515.2	506.9	508.2	505.6
10°	512.6	508.7	497.8	495.6	490.3
12.5°	506.5	500.4	483.3	479.0	475.9
15°	498.2	490.8	470.2	458.0	450.6
17.5°	488.6	478.5	452.8	436.2	428.3
20°	478.5	465.4	433.1	410.4	402.6
22.5°	465.9	450.6	411.7	384.7	376.8
25°	452.8	434.9	389.9	357.6	344.5
27.5°	438.8	417.0	365.5	329.2	314.8
30°	424.8	398.2	342.7	299.1	285.1
32.5°	409.1	379.4	317.4	271.6	255.0
35°	393.0	358.0	292.5	244.5	228.4
37.5°	376.8	338.4	267.6	219.2	202.2
40°	358.5	317.9	242.3	192.6	179.9
42.5°	341.0	296.5	218.3	172.0	158.5
45°	323.1	274.6	195.2	151.5	140.2
47.5°	303.9	253.2	172.5	133.6	122.3
50°	285.6	230.5	151.9	116.1	105.2
52.5°	265.5	209.1	132.7	98.2	92.1
55°	246.7	187.3	114.4	86.9	83.8
57.5°	226.6	166.4	97.4	78.6	75.1
60°	207.8	145.4	80.8	69.9	67.7
62.5°	186.9	125.3	70.3	62.0	59.8
65°	167.2	104.4	61.6	54.1	52.8
67.5°	147.6	86.5	53.3	47.2	45.8
70°	127.5	68.5	45.0	40.6	39.3
72.5°	107.8	52.4	37.5	34.1	33.2
75°	88.6	41.0	31.0	28.4	27.5
77.5°	71.6	31.4	24.5	22.3	21.8
80°	52.0	23.1	18.3	17.0	16.6
82.5°	35.4	15.7	13.1	12.2	11.4
85°	21.4	8.7	7.9	7.4	7.0
87.5°	8.7	3.9	3.5	3.1	3.1
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)