

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: P242260

Luminaire Tested: **S122DR-S290D835-X4F0-XX-UDD-F-W**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P242260  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1802-639-10)  
Test Lab: INNOVATION CENTER  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: NEO-RAY  
Catalog Number: S122DR-S290D835-X4F0-XX-UDD-F-W  
Description: DEFINE 2 DIRECT RECESSED WITH SATIN FLUSH DIFFUSER  
STANDARD LIGHT ENGINE  
Light Source: (92) 3500K CCT, 80 CRI LEDS  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

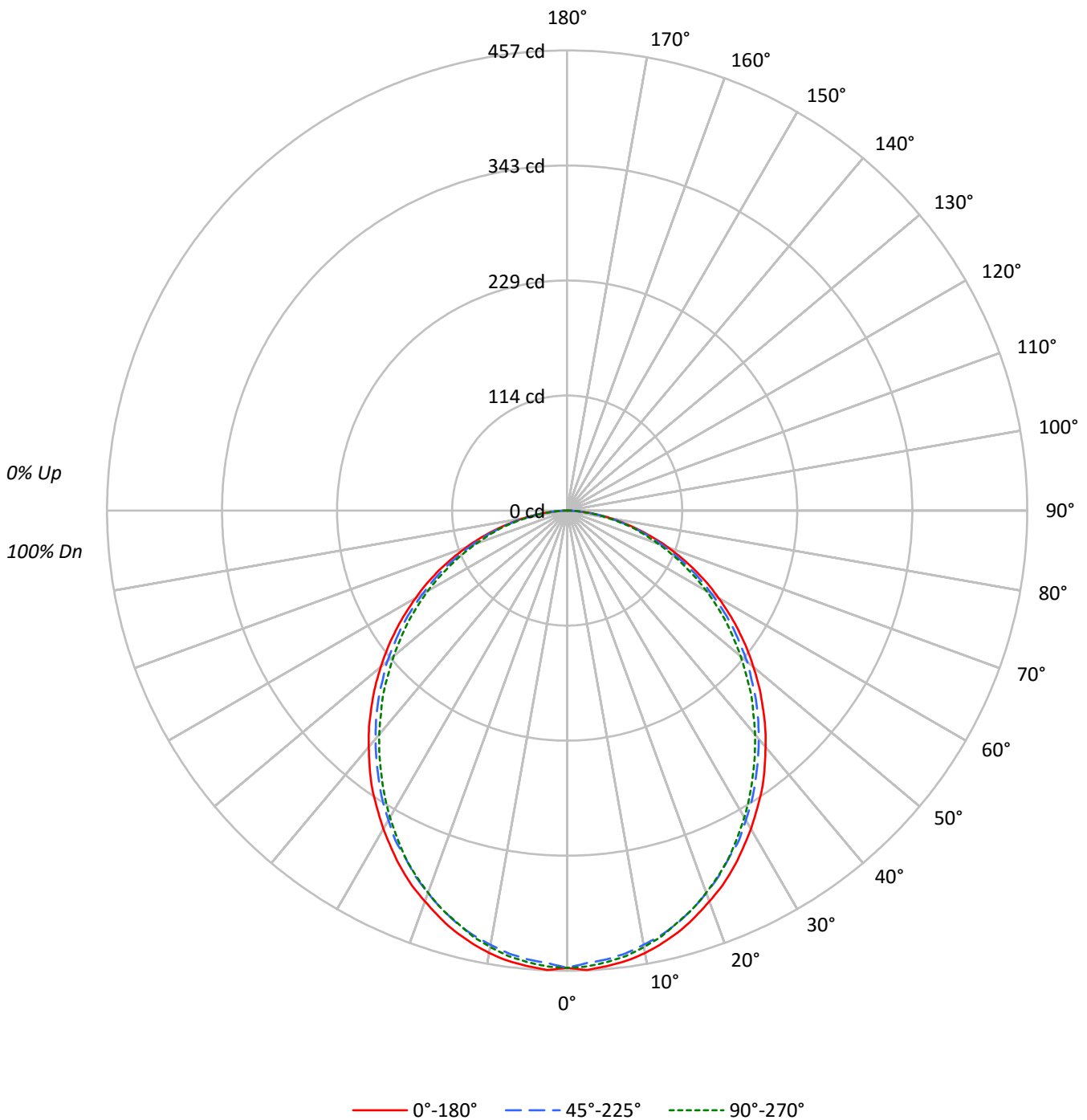
Lumens per Lamp: N/A  
Luminaire Lumens: 1155.3 lumens  
Efficiency: N/A  
Efficacy: 99.6 lumens/watt  
Spacing Criteria (0/90/45): 1.2 / 1.16 / 1.29  
Luminous Opening: Rectangular (W 0.15' x L: 3.88' x H: 0')  
CIE Type: Direct  
  
Input Watts (W): 11.6  
Input Voltage (V): 120  
Input Current (A<sub>in</sub>): 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	74		80	76	73	71
3	91	80	72	66	88	79	71	65	76	69	64		73	68	63		71	66	62	60
4	83	71	63	56	81	70	62	56	68	61	55		65	59	54		63	58	54	51
5	77	64	55	49	75	63	55	48	61	53	48		59	52	47		57	51	47	45
6	71	58	49	43	69	57	48	42	55	48	42		53	47	42		52	46	41	39
7	66	52	44	38	64	52	43	38	50	43	37		49	42	37		47	41	37	35
8	61	48	40	34	60	47	39	34	46	39	33		45	38	33		44	38	33	31
9	57	44	36	30	56	43	36	30	42	35	30		41	35	30		40	34	30	28
10	54	41	33	28	53	40	33	28	39	32	27		38	32	27		37	32	27	26

**AVERAGE LUMINANCE (cd/sqm):**

	0°	45°	90°
0°	8650	8650	8650
5°	8683	8556	8608
10°	8630	8470	8512
15°	8525	8361	8351
20°	8372	8195	8187
25°	8222	7993	7993
30°	8028	7808	7740
35°	7848	7585	7474
40°	7621	7360	7221
45°	7397	7138	6963
50°	7156	6910	6664
55°	6901	6642	6396
60°	6621	6320	6088
65°	6319	6003	5728
70°	5931	5619	5352
75°	5402	5174	5041
80°	4794	4651	4410
85°	3912	3715	3344



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	42.7	3.7
10°-20°	120.2	10.4
20°-30°	176.7	15.3
30°-40°	205.2	17.8
40°-50°	205.0	17.7
50°-60°	178.7	15.5
60°-70°	132.1	11.4
70°-80°	74.8	6.5
80°-90°	19.7	1.7
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°	339.7	29.4
0°-40°	544.9	47.2
0°-60°	928.6	80.4
0°-90°	1155.3	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1155.3	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	454	454	454	454	454	
5°	454	452	448	451	450	43
15°	432	430	424	426	424	122
25°	391	388	380	381	380	180
35°	338	333	326	324	321	211
45°	275	272	265	260	258	212
55°	208	205	200	195	193	186
65°	140	138	133	129	127	139
75°	73	72	70	68	68	78
85°	18	18	17	16	15	21
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	454.1	454.1	454.1	454.1	454.1
2.5°	456.7	454.5	449.7	454.1	453.2
5°	454.1	452.3	447.5	451.0	450.2
7.5°	451.0	448.4	443.6	447.1	446.2
10°	446.2	443.2	437.9	441.4	440.1
12.5°	439.7	437.1	431.8	434.0	433.1
15°	432.3	429.6	424.0	425.7	423.5
17.5°	423.1	420.5	414.8	417.0	414.8
20°	413.0	410.4	404.3	405.6	403.9
22.5°	403.0	399.1	393.4	393.4	392.5
25°	391.2	387.7	380.3	381.2	380.3
27.5°	378.1	375.1	369.4	368.1	365.9
30°	365.0	361.5	355.0	353.7	351.9
32.5°	351.0	348.4	341.4	338.8	337.1
35°	337.5	333.1	326.2	323.5	321.4
37.5°	322.2	318.3	311.3	308.3	306.1
40°	306.5	303.0	296.0	292.1	290.4
42.5°	291.2	287.7	280.7	276.4	273.8
45°	274.6	271.6	265.0	260.2	258.5
47.5°	258.5	255.4	248.4	243.6	241.0
50°	241.5	239.3	233.2	227.0	224.9
52.5°	224.9	221.8	216.1	211.3	208.3
55°	207.8	205.2	200.0	194.7	192.6
57.5°	190.8	188.6	182.9	177.7	176.0
60°	173.8	172.0	165.9	161.1	159.8
62.5°	157.2	154.1	149.8	145.4	143.6
65°	140.2	137.5	133.2	129.2	127.1
67.5°	122.7	120.5	116.6	113.5	111.8
70°	106.5	104.8	100.9	97.8	96.1
72.5°	89.9	88.2	86.0	83.0	81.6
75°	73.4	72.5	70.3	67.7	68.5
77.5°	58.5	56.8	55.9	54.6	53.3
80°	43.7	43.2	42.4	41.0	40.2
82.5°	29.7	29.7	29.3	27.5	27.5
85°	17.9	17.5	17.0	15.7	15.3
87.5°	7.9	7.0	6.1	4.8	4.4
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)