

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: P243052

Luminaire Tested: **S121RDR-H490D835-X4F0-XX-UDD-F-W**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P243052
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1802-639-62)
Test Lab: INNOVATION CENTER
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: NEO-RAY
Catalog Number: S121RDR-H490D835-X4F0-XX-UDD-F-W
Description: DEFINE 1 REGRESSED DIRECT RECESSED WITH SATIN FLUSH DIFFUSER.
HIGH PERFORMANCE LIGHT ENGINE
Light Source: (184) 3500K CCT, 80 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 1463.0 lumens
Efficiency: N/A
Efficacy: 85.1 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

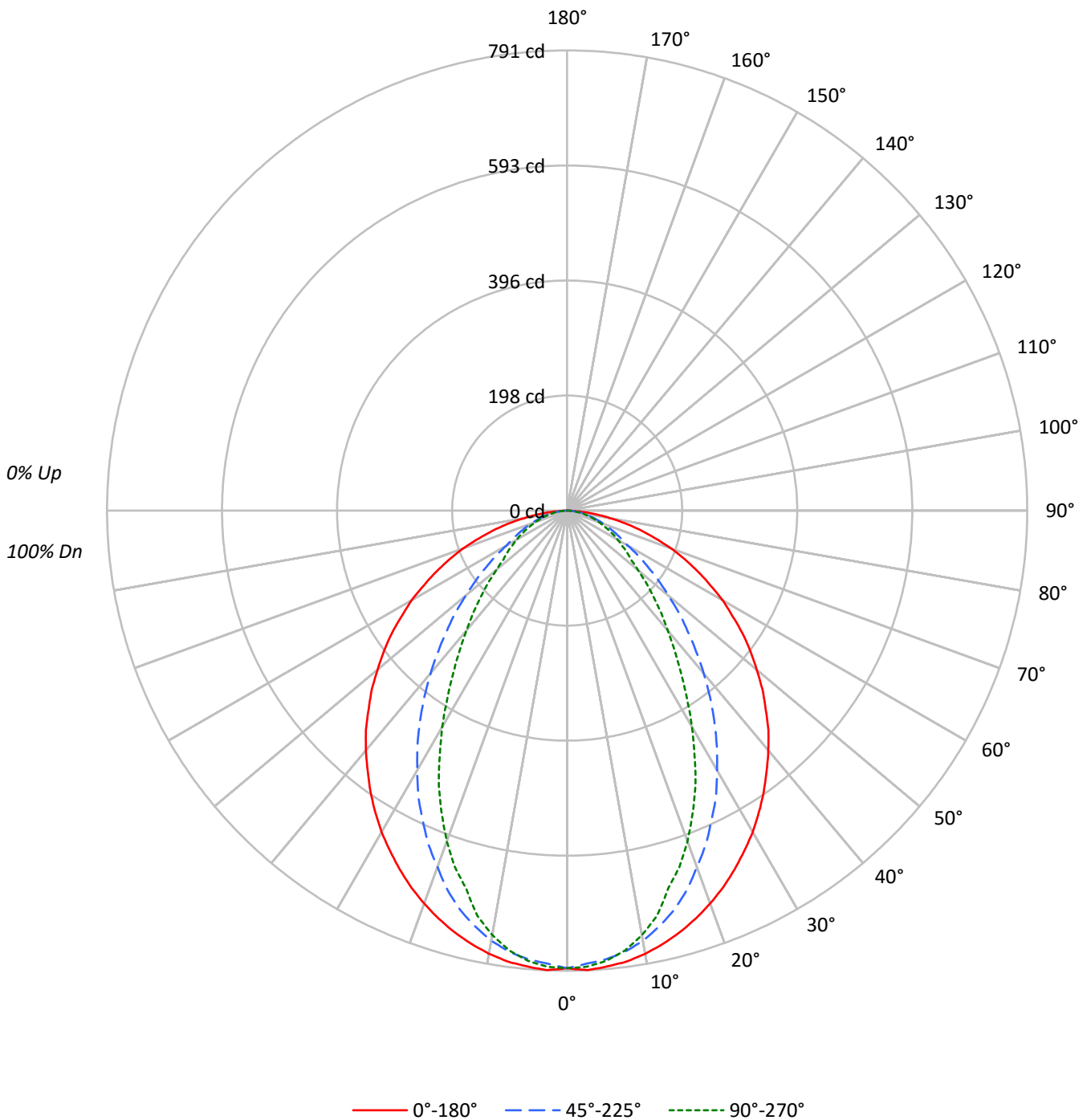
Input Watts (W): 17.2
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	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	94	91	92	90	89					87				
2	102	94	88	83	99	92	87	82	89	84	80	86	82	79	83	80	77					75				
3	94	84	77	71	91	83	76	71	80	74	69	77	72	68	75	71	67					65				
4	87	76	68	62	84	74	67	61	72	66	61	70	64	60	68	63	59					57				
5	80	69	60	54	78	67	60	54	65	59	54	64	58	53	62	57	52					50				
6	75	62	54	48	73	62	54	48	60	53	48	58	52	47	57	51	47					45				
7	70	57	49	43	68	56	49	43	55	48	43	54	47	43	52	47	42					41				
8	65	53	45	39	64	52	44	39	51	44	39	50	43	39	48	43	39					37				
9	61	49	41	36	60	48	41	36	47	40	36	46	40	35	45	39	35					34				
10	58	45	38	33	56	45	38	33	44	37	33	43	37	33	42	36	32					31				

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	23310	23310	23310
5°	23399	23021	23101
10°	23269	22586	22285
15°	23006	21801	20614
20°	22662	20558	19067
25°	22254	19200	17066
30°	21828	17630	14688
35°	21316	15941	12345
40°	20809	14129	10393
45°	20226	12265	8800
50°	19604	10450	7315
55°	19010	8818	6509
60°	18293	7153	5967
65°	17387	6401	5469
70°	16460	5778	5025
75°	15031	5186	4579
80°	12848	4556	4095
85°	9961	3842	3400



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	73.7	5.0
10°-20°	200.2	13.7
20°-30°	273.1	18.7
30°-40°	283.2	19.4
40°-50°	247.1	16.9
50°-60°	185.9	12.7
60°-70°	121.9	8.3
70°-80°	62.2	4.2
80°-90°	15.8	1.1
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°	547.0	37.4
0°-40°	830.1	56.7
0°-60°	1263.1	86.3
0°-90°	1463.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1463.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	787	787	787	787	787	
5°	787	783	774	779	777	75
15°	750	739	711	691	672	211
25°	681	653	587	538	522	314
35°	589	539	441	367	341	369
45°	483	413	293	227	210	373
55°	368	280	171	129	126	328
65°	248	155	91	81	78	246
75°	131	60	45	41	40	139
85°	29	12	11	10	10	35
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	786.7	786.7	786.7	786.7	786.7
2.5°	790.7	787.4	779.4	786.0	784.7
5°	786.7	782.7	774.0	778.7	776.7
7.5°	782.0	776.7	764.7	766.7	762.7
10°	773.4	766.7	750.7	746.7	740.7
12.5°	762.7	755.4	732.0	722.7	713.3
15°	750.0	739.3	710.7	690.7	672.0
17.5°	735.3	722.0	684.0	656.0	642.0
20°	718.7	701.3	652.0	619.3	604.7
22.5°	700.7	678.7	622.0	580.7	563.3
25°	680.7	652.7	587.3	538.0	522.0
27.5°	659.3	627.3	554.0	497.3	474.0
30°	638.0	598.0	515.3	452.0	429.3
32.5°	614.0	568.7	478.7	408.7	383.3
35°	589.3	538.7	440.7	366.7	341.3
37.5°	563.3	508.7	402.7	328.0	303.3
40°	538.0	476.0	365.3	290.7	268.7
42.5°	512.0	443.3	328.0	258.0	239.3
45°	482.7	412.7	292.7	227.3	210.0
47.5°	455.3	379.3	260.7	200.0	184.0
50°	425.3	346.7	226.7	174.7	158.7
52.5°	397.3	313.3	198.7	148.0	138.0
55°	368.0	280.0	170.7	129.3	126.0
57.5°	336.7	247.3	146.0	116.0	112.0
60°	308.7	216.0	120.7	104.0	100.7
62.5°	277.3	184.7	104.7	92.7	89.3
65°	248.0	154.7	91.3	80.7	78.0
67.5°	218.7	127.3	78.7	70.0	67.3
70°	190.0	101.3	66.7	60.0	58.0
72.5°	158.7	76.7	56.0	50.7	49.3
75°	131.3	60.0	45.3	41.3	40.0
77.5°	102.7	45.3	35.3	32.7	32.0
80°	75.3	32.7	26.7	24.7	24.0
82.5°	51.3	22.0	18.7	17.3	16.7
85°	29.3	12.0	11.3	10.0	10.0
87.5°	11.3	4.7	4.0	4.0	4.0
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)