

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: P242202

Luminaire Tested: **S121RDR-S685D930-X4F0-XX-UDD-F-W**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P242202
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-S685D930-X4F0-XX-UDD-F-W
Description: DEFINE 1 REGRESSED DIRECT RECESSED WITH SATIN FLUSH DIFFUSER
STANDARD LIGHT ENGINE
Light Source: (92) 3000K CCT, 90 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 1823.4 lumens
Efficiency: N/A
Efficacy: 69.1 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

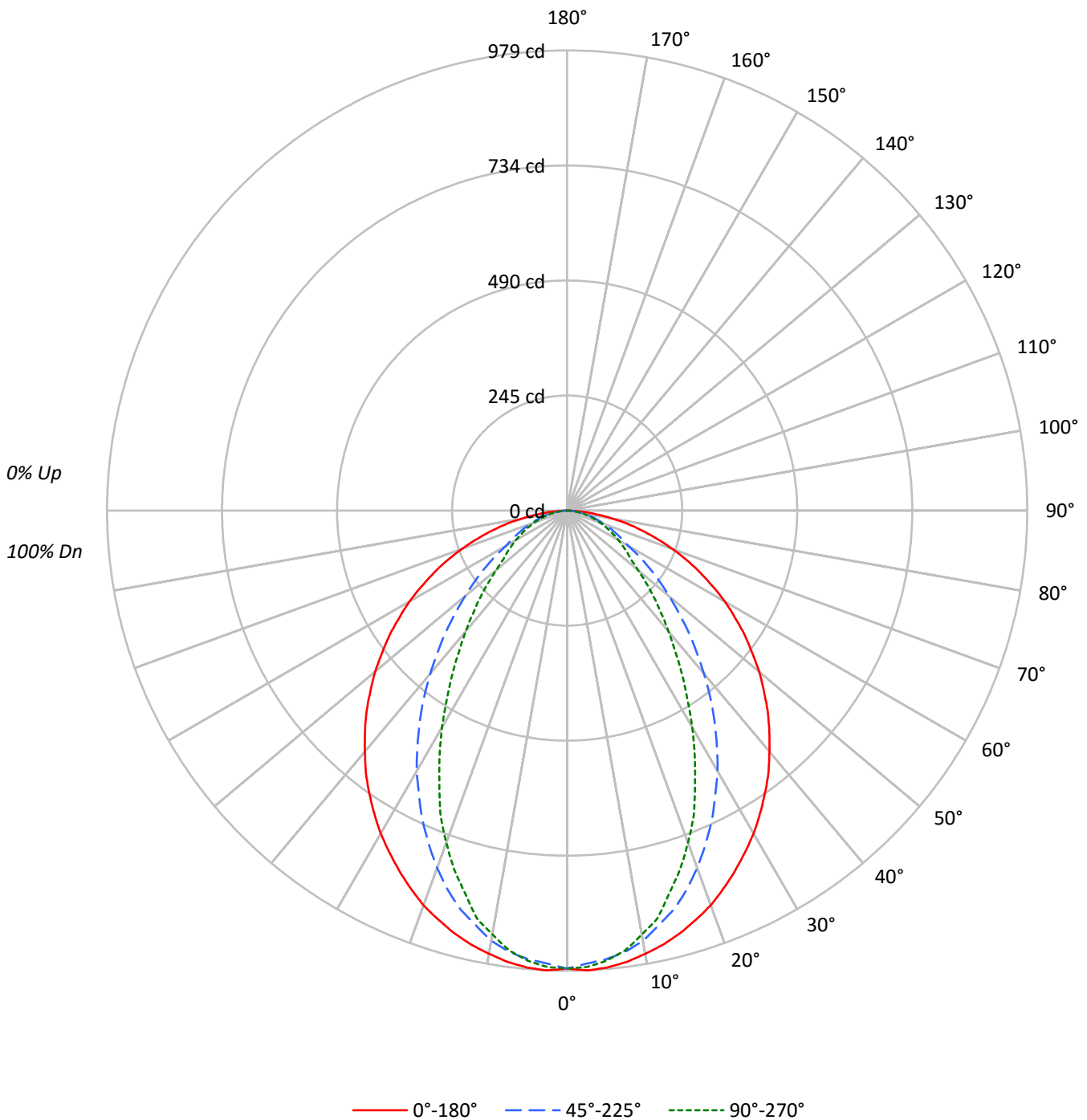
Input Watts (W): 26.4
Input Voltage (V): 120
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	28868	28868	28868
5°	29026	28494	28589
10°	28799	27963	27547
15°	28537	26936	25810
20°	28176	25502	23702
25°	27642	23804	21031
30°	27142	21897	18215
35°	26542	19757	15423
40°	25892	17502	12992
45°	25280	15269	10966
50°	24578	13077	9058
55°	23794	11034	8084
60°	22999	8936	7490
65°	21895	8063	6920
70°	20627	7277	6359
75°	18947	6628	5884
80°	16551	5836	5290
85°	13565	4997	4420



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	91.2	5.0
10°-20°	248.0	13.6
20°-30°	338.6	18.6
30°-40°	351.9	19.3
40°-50°	307.5	16.9
50°-60°	232.4	12.7
60°-70°	153.5	8.4
70°-80°	79.1	4.3
80°-90°	21.0	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°	677.9	37.2
0°-40°	1029.8	56.5
0°-60°	1569.7	86.1
0°-90°	1823.4	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1823.4	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	974	974	974	974	974	
5°	976	970	958	965	961	93
15°	930	916	878	855	841	262
25°	846	812	728	668	643	390
35°	734	668	546	457	426	459
45°	603	513	364	283	262	465
55°	461	350	214	162	156	411
65°	312	195	115	101	99	309
75°	166	77	58	53	51	176
85°	40	16	15	14	13	46
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	974.3	974.3	974.3	974.3	974.3
2.5°	979.2	974.3	964.5	973.5	971.8
5°	975.9	970.2	958.0	965.3	961.2
7.5°	968.6	962.1	946.6	949.0	944.1
10°	957.2	949.8	929.4	925.4	915.6
12.5°	945.7	934.3	902.5	894.4	888.7
15°	930.3	916.4	878.1	855.2	841.4
17.5°	912.3	893.6	845.5	814.5	799.8
20°	893.6	869.1	808.8	766.4	751.7
22.5°	869.9	841.4	768.8	718.3	703.6
25°	845.5	812.0	728.1	667.7	643.3
27.5°	819.4	778.6	682.4	614.7	587.8
30°	793.3	743.6	640.0	558.5	532.4
32.5°	763.9	708.5	592.7	507.1	476.1
35°	733.8	668.5	546.2	456.6	426.4
37.5°	703.6	631.9	499.8	409.3	377.5
40°	669.4	593.5	452.5	359.5	335.9
42.5°	636.7	553.6	407.6	321.2	296.0
45°	603.3	512.8	364.4	282.9	261.7
47.5°	567.4	472.9	322.0	249.5	228.3
50°	533.2	430.5	283.7	216.9	196.5
52.5°	495.7	390.5	247.9	183.4	172.0
55°	460.6	349.8	213.6	162.2	156.5
57.5°	423.1	310.6	181.8	146.8	140.2
60°	388.1	271.5	150.8	130.4	126.4
62.5°	348.9	234.0	131.3	115.8	111.7
65°	312.3	194.9	115.0	101.1	98.7
67.5°	275.6	161.4	99.5	88.1	85.6
70°	238.1	128.0	84.0	75.8	73.4
72.5°	201.4	97.8	70.1	63.6	62.0
75°	165.5	76.6	57.9	53.0	51.4
77.5°	133.7	58.7	45.7	41.6	40.8
80°	97.0	43.2	34.2	31.8	31.0
82.5°	66.0	29.4	24.5	22.8	21.2
85°	39.9	16.3	14.7	13.9	13.0
87.5°	16.3	7.3	6.5	5.7	5.7
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)