

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: P242197

Luminaire Tested: **S121RDR-S685D840-X4F0-XX-UDD-F-W**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P242197
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-S685D840-X4F0-XX-UDD-F-W
Description: DEFINE 1 REGRESSED DIRECT RECESSED WITH SATIN FLUSH DIFFUSER
STANDARD LIGHT ENGINE
Light Source: (92) 4000K CCT, 80 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 2258.5 lumens
Efficiency: N/A
Efficacy: 85.5 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

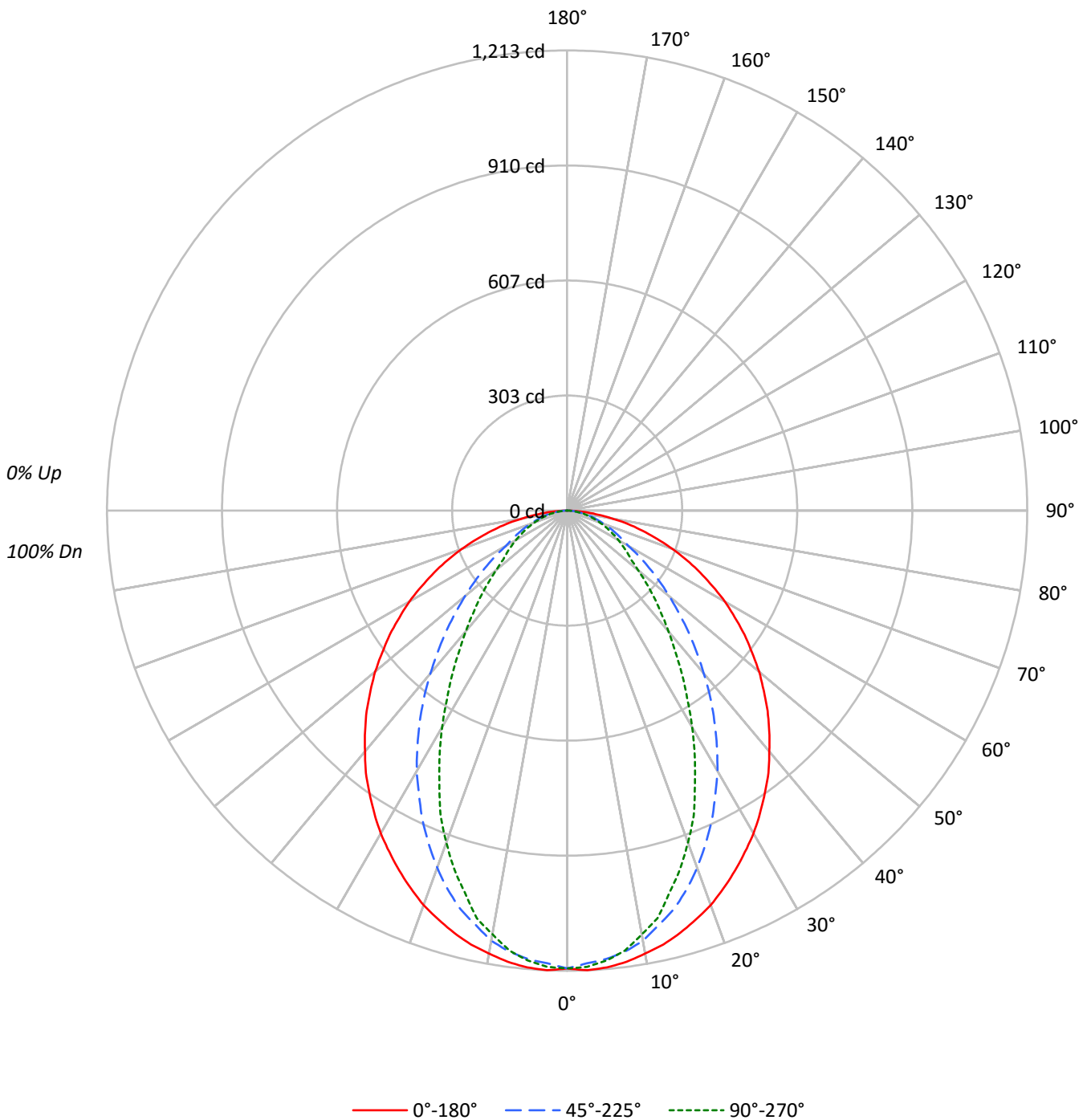
Input Watts (W): 26.4
Input Voltage (V): 120
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	35757	35757	35757
5°	35953	35293	35412
10°	35671	34636	34121
15°	35347	33362	31969
20°	34899	31588	29359
25°	34236	29482	26050
30°	33618	27121	22560
35°	32876	24473	19106
40°	32069	21679	16094
45°	31314	18915	13585
50°	30446	16198	11220
55°	29476	13669	10016
60°	28486	11070	9274
65°	27118	9984	8567
70°	25548	9010	7875
75°	23468	8208	7281
80°	20510	7235	6552
85°	16828	6187	5507



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	113.0	5.0
10°-20°	307.2	13.6
20°-30°	419.4	18.6
30°-40°	435.9	19.3
40°-50°	380.8	16.9
50°-60°	287.9	12.7
60°-70°	190.2	8.4
70°-80°	98.0	4.3
80°-90°	26.0	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°	839.6	37.2
0°-40°	1275.5	56.5
0°-60°	1944.3	86.1
0°-90°	2258.5	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2258.5	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1207	1207	1207	1207	1207	
5°	1209	1202	1187	1196	1191	115
15°	1152	1135	1088	1059	1042	325
25°	1047	1006	902	827	797	483
35°	909	828	677	566	528	569
45°	747	635	451	350	324	576
55°	571	433	265	201	194	510
65°	387	241	142	125	122	383
75°	205	95	72	66	64	218
85°	50	20	18	17	16	58
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1206.8	1206.8	1206.8	1206.8	1206.8
2.5°	1212.8	1206.8	1194.7	1205.8	1203.8
5°	1208.8	1201.7	1186.6	1195.7	1190.6
7.5°	1199.7	1191.6	1172.5	1175.5	1169.4
10°	1185.6	1176.5	1151.2	1146.2	1134.1
12.5°	1171.4	1157.3	1117.9	1107.8	1100.8
15°	1152.3	1135.1	1087.6	1059.3	1042.2
17.5°	1130.0	1106.8	1047.2	1008.9	990.7
20°	1106.8	1076.5	1001.8	949.3	931.1
22.5°	1077.5	1042.2	952.3	889.7	871.5
25°	1047.2	1005.8	901.8	827.1	796.8
27.5°	1014.9	964.4	845.3	761.4	728.1
30°	982.6	921.0	792.7	691.8	659.4
32.5°	946.2	877.6	734.2	628.1	589.8
35°	908.9	828.1	676.6	565.5	528.2
37.5°	871.5	782.6	619.0	507.0	467.6
40°	829.1	735.2	560.5	445.3	416.1
42.5°	788.7	685.7	504.9	397.9	366.6
45°	747.3	635.2	451.4	350.4	324.2
47.5°	702.9	585.7	398.9	309.0	282.8
50°	660.5	533.2	351.4	268.6	243.4
52.5°	614.0	483.7	307.0	227.2	213.1
55°	570.6	433.2	264.6	201.0	193.9
57.5°	524.1	384.8	225.2	181.8	173.7
60°	480.7	336.3	186.8	161.6	156.5
62.5°	432.2	289.8	162.6	143.4	138.4
65°	386.8	241.4	142.4	125.2	122.2
67.5°	341.3	200.0	123.2	109.1	106.0
70°	294.9	158.5	104.0	93.9	90.9
72.5°	249.4	121.2	86.8	78.8	76.7
75°	205.0	94.9	71.7	65.6	63.6
77.5°	165.6	72.7	56.6	51.5	50.5
80°	120.2	53.5	42.4	39.4	38.4
82.5°	81.8	36.4	30.3	28.3	26.3
85°	49.5	20.2	18.2	17.2	16.2
87.5°	20.2	9.1	8.1	7.1	7.1
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)