

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: G3-1802-639-9

Luminaire Tested: **S121DR-S685D835-X4F0-XX-UDD-F-W**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: G3-1802-639-9
Test Lab: INNOVATION CENTER(G3)
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: NEO-RAY
Catalog Number: S121DR-S685D835-X4F0-XX-UDD-F-W
Description: DEFINE 1 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: 2750.3 lumens
Efficiency: N/A
Efficacy: 105.0 lumens/watt
Spacing Criteria (0/90/45): 1.2 / 1.16 / 1.29
Luminous Opening: Rectangular (W 0.09' x L: 3.92' x H: 0')
CIE Type: Direct

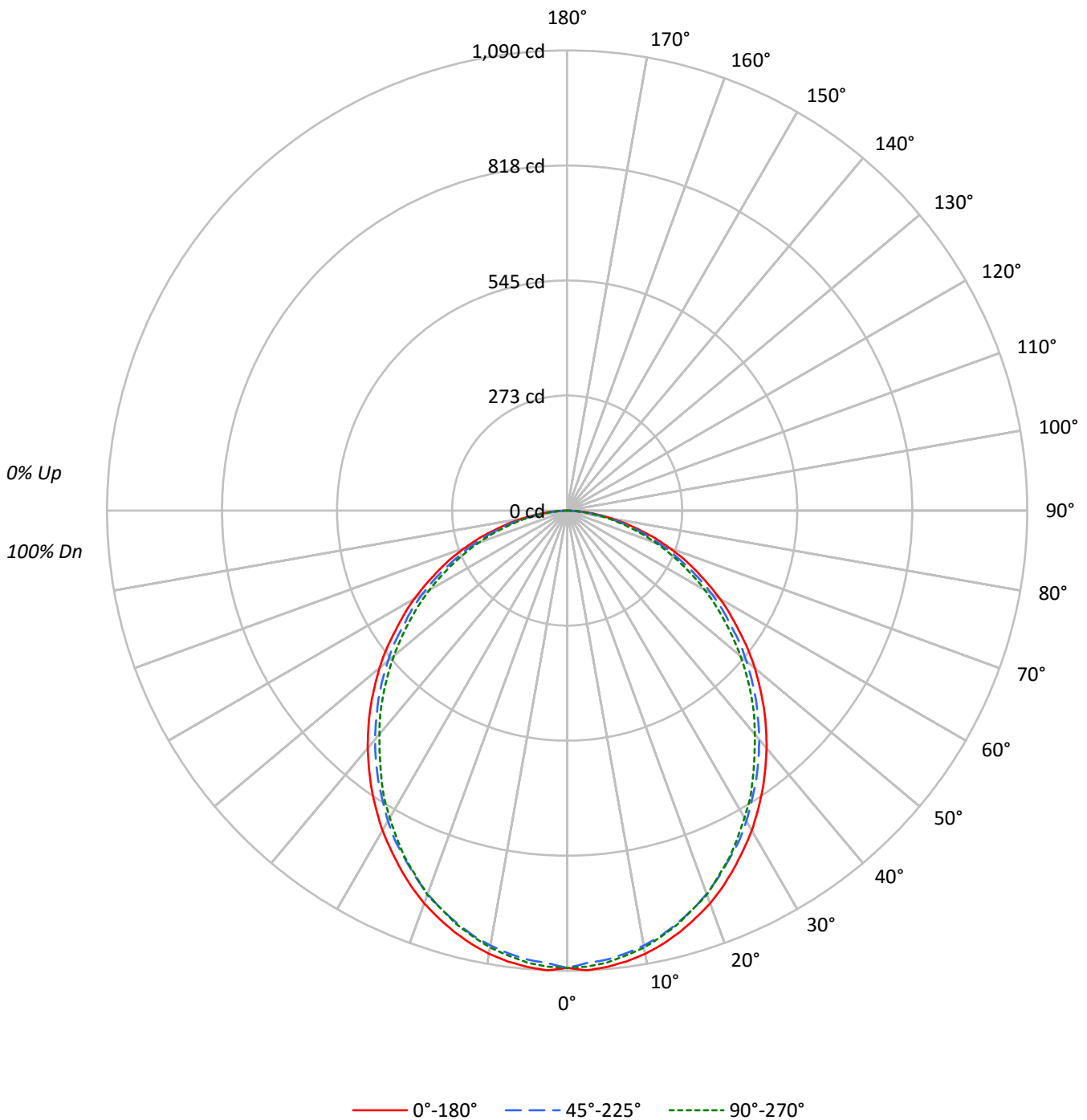
Input Watts (W): 26.2
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	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	75	80	76	73	71
3	91	80	72	66	88	79	71	66	76	70	64	73	68	63	71	66	62	60
4	83	72	63	56	81	70	62	56	68	61	55	65	59	54	63	58	54	52
5	77	64	55	49	75	63	55	48	61	54	48	59	52	47	57	51	47	45
6	71	58	49	43	69	57	49	42	55	48	42	53	47	42	52	46	41	39
7	66	53	44	38	64	52	44	38	50	43	37	49	42	37	47	41	37	35
8	61	48	40	34	60	47	39	34	46	39	34	45	38	33	44	38	33	31
9	57	44	36	31	56	44	36	30	42	35	30	41	35	30	40	34	30	28
10	54	41	33	28	53	40	33	28	39	32	28	38	32	27	37	32	27	26

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	31748	31748	31748
5°	31928	31427	31633
10°	31731	31136	31285
15°	31350	30682	30773
20°	30884	30135	30198
25°	30243	29434	29369
30°	29618	28738	28434
35°	28880	27913	27484
40°	28127	27093	26481
45°	27320	26201	25537
50°	26451	25265	24444
55°	25401	24123	23254
60°	24507	23217	22162
65°	23306	21780	20670
70°	21942	20313	19199
75°	20161	18462	17216
80°	17894	16206	15025
85°	14799	12108	10763



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	102.0	3.7
10°-20°	287.2	10.4
20°-30°	422.4	15.4
30°-40°	490.4	17.8
40°-50°	489.3	17.8
50°-60°	425.8	15.5
60°-70°	313.6	11.4
70°-80°	174.7	6.4
80°-90°	45.1	1.6
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°	811.5	29.5
0°-40°	1301.9	47.3
0°-60°	2217.0	80.6
0°-90°	2750.3	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2750.3	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1083	1083	1083	1083	1083	
5°	1085	1080	1068	1077	1075	103
15°	1033	1025	1011	1018	1014	291
25°	935	925	910	912	908	431
35°	807	797	780	772	768	505
45°	659	648	632	620	616	508
55°	497	491	472	463	455	446
65°	336	329	314	304	298	334
75°	178	173	163	156	152	190
85°	44	42	36	34	32	52
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1083	1083	1083	1083	1083
2.5°	1090	1084	1073	1082	1081
5°	1085	1080	1068	1077	1075
7.5°	1077	1071	1058	1066	1063
10°	1066	1060	1046	1052	1051
12.5°	1051	1044	1031	1036	1033
15°	1033	1025	1011	1018	1014
17.5°	1012	1003	990	994	990
20°	990	980	966	970	968
22.5°	964	955	939	941	937
25°	935	925	910	912	908
27.5°	905	896	882	879	874
30°	875	864	849	845	840
32.5°	841	831	814	810	807
35°	807	797	780	772	768
37.5°	771	761	744	735	729
40°	735	724	708	699	692
42.5°	697	687	669	660	655
45°	659	648	632	620	616
47.5°	619	609	593	580	576
50°	580	569	554	541	536
52.5°	540	530	516	503	495
55°	497	491	472	463	455
57.5°	458	451	436	421	416
60°	418	410	396	383	378
62.5°	376	370	356	344	337
65°	336	329	314	304	298
67.5°	299	290	275	265	260
70°	256	249	237	229	224
72.5°	219	211	200	192	187
75°	178	173	163	156	152
77.5°	142	135	128	123	120
80°	106	101	96	91	89
82.5°	74	70	65	62	59
85°	44	42	36	34	32
87.5°	21	18	12	11	10
90°	0	0	0	0	0

(END OF REPORT)